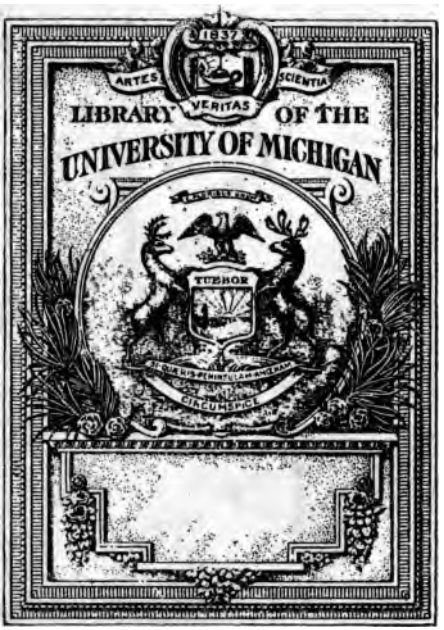
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ARCHIVES OF SURGERY.

ARCHIVES OF SURGERY.

BY

JONATHAN HUTCHINSON, LL.D., F.R.S.,

Consulting Surgeon to the London Hospital, and President of the Royal College of Surgeons.

VOL. I.

London:

J. & A. CHURCHILL,

11, NEW BURLINGTON STREET.

1890.

LONDON:

PRINTED BY WEST, NEWMAN, AND CO.,

HATTON GARDEN, E.C.

PREFACE.

The following prefatory announcement appeared with the first number :—

It may seem almost a work of presumption to begin the issue of a Journal to which I purpose, with but very few exceptions, to be the sole contributor. The fact is, that I have a very large store of clinical material, much of which is carefully edited and ready for the press. My engagements are such as to preclude that continuous attention which is needful to prepare a book. I can only do fragmentary work, and I am much attracted to a form of publication which will permit of my recurring to the same subject should it seem desirable to make additions or corrections.

I have been, from the earliest part of my professional career, an industrious note-taker, and from time to time I have given both myself and my friends much trouble in the endeavour to make my cases complete. The latter have in many instances very kindly spared no pains to obtain for me the final results in cases of which the first notes had been taken years before. In many of these the cases are of such a nature that I cannot mention the names of those who have assisted me, but I should feel to be ungrateful were I not to do my best to put the results of their labours to some practical use.

It is not intended that the issue of the ARCHIVES shall continue beyond a limited time. Coloured illustrations are already in preparation, which at the rate of four for each quarterly number will serve for three years. This period, should my life continue and health permit, may probably be about the duration of my Journal. It is proposed, as will be surmised from the headings of the plates, to publish the whole of them together as a "Smaller Atlas" at the conclusion of the ARCHIVES. They will comprise very similar subjects to those already given in my "Atlas of Illustrations of Clinical Surgery," but will in very few cases be copied from it. The scope of the ARCHIVES will be wide, and is perhaps fairly indicated by the contents of No. I. The division of subjects under the special headings which are adopted in this number is not however intended to be permanent, but will be varied from time to time. I shall devote special attention to the endeavour to make my cases tell their own tale, and shall consider as my objects the elucidation of symptoms and the development of principles of treatment.

JONATHAN HUTCHINSON.

April, 1889.

POSTSCRIPT. *April*, 1890.—The conclusion of Vol. I. affords me an opportunity of thanking numerous friends who have expressed their interest in my undertaking. Its success has very far exceeded my expectations, and will justify a further increase in the number of illustrations.—J. H.

LIST OF PLATES.

Note.—The reader is requested to observe that the Plates will not always bear consecutive numbers. They have been printed for a smaller Atlas of Clinical Illustrations of Disease, which will be published on completion of the Archives, and their numbers refer to their position in that work.

LIST OF WORKS BY MR. HUTCHINSON.

ILLUSTRATIONS OF CLINICAL SURGERY. Vols. I. and II. Only a few complete copies of this work now remain on hand. The price of Vol. I., containing ten fasciculi, is 70s.; and that of Vol. II., containing thirteen fasciculi, is 90s. Most of the fasciculi can be had separately, price 6s. 6d.; and each one is complete in itself.

CLINICAL LECTURES ON RARE DISEASES OF THE SKIN. Pp. 382. Octavo. Price 10s. 6d.

THE PEDIGREE OF DISEASE, being lectures delivered at the Royal College of Surgeons. Price 5s.

ON CALCULI AND THEIR LESSONS, a reprint from the New Sydenham Society's Atlas of Pathology. Price 2s. 6d.

PRESIDENTIAL ADDRESS, delivered before the Neurological Society, 1889. A reprint. Price 1s.

A LIFE REGISTER, intended to facilitate the orderly record of the events of life, both as regards health and other matters. Cloth, price 1s. 6d. Hand-made paper, bound roan wallet, 3s. 6d.

ARCHIVES OF SURGERY. This work is issued quarterly, and it is purposed to continue it for three or four years. Vol. I. is now ready.

EXCHANGES.

Mr. Hutchinson will be glad to arrange for the exchange of his ARCHIVES with other medical periodicals, and to send two or more copies in cases where the money value may be greater. He will also be glad to exchange with authors for any of the works mentioned in the above list on *pro rata* principle.

All the above may be had of

J. & A. CHURCHILL, 11, NEW BURLINGTON STREET, LONDON, W.

ARCHIVES OF SURGERY.

JULY, 1889.

RECORDS OF INTESTINAL OBSTRUCTION; WITH ESPECIAL REFERENCE TO SYMPTOMS AND TREATMENT.

THERE are many and very important questions in reference to the diagnosis and treatment of intestinal obstructions which are still open to debate. As some of my readers may know, I have myself, for long, taken great interest in their discussion, and have already on several occasions published statements of my experience. It seems to me, however, that there is much still to be said, and that from the careful collation of facts we may yet hope for important increase of our knowledge. I therefore purpose in this and in subsequent papers to pass anew over the whole subject. In doing this, it will be my endeavour to make the facts as far as possible speak for themselves. I shall cite cases already published by others as well as by myself, and do my best to state them in such a manner that their lessons will be easily appreciated. A main object will be to test our rules of diagnosis. It is possible that in some respects these may be developed and made more definite, but, it is also possible, that they are already, in some directions, pushed beyond what our knowledge justifies. Next to the correct interpretation of symptoms, and based upon it, will come the establishment of rules of treatment. These must be adapted with

discrimination to the differing groups of cases. More particularly I shall seek to ascertain what are the indications for surgical interference, by way of operation, exploration, or otherwise. Although as stated, it is my intention to cite new facts and to recapitulate old ones in some detail, and although I shall seek to submit my opinions most rigidly to the test of facts, yet I will by no means profess that those opinions are not already formed. I can by no means go with some of my surgical friends, who write as if they thought the diagnosis of intestinal obstruction in its early stages an easy matter, more especially with those who insist upon the performance of early operations with much the same degree of confidence that is felt in reference to strangulated hernia. I do not believe that the diagnosis of what has been called "acute intestinal obstruction" can be made-out with certainty; nor do I think that that term is by any means an appropriate one, as applicable to any single group of abdominal cases. The symptoms which are supposed to indicate it may occur in connection with a variety of causes, some of them not implying any real obstruction at all. Suddenness of onset, severity of pain, vomiting, tenderness, and constipation constitute the group of symptoms which are by some considered to imply "acute abdominal obstruction." There are those who go even further than this, and boldly assert that the symptoms justify the diagnosis of a form of abdominal obstruction from which spontaneous recovery is scarcely possible, and that when they are present an operation is indicated.

The two surgeons who have expressed themselves the most definitely on this point are, first, my friend and colleague, Mr. Treves, to whose skill as a surgeon, and dexterity as an operator, I bear the most willing testimony, and Mr. Greig Smith, of Bristol.*

Mr. Treves writes: "With regard to the curative treatment, the only measure is laparotomy. It has been shown that in the first five at least, of the above-mentioned con-

* Since the above was written, an opportunity has occurred which enables me with much pleasure to extend this statement from personal observation to Mr. Grieg Smith also.

ditions, spontaneous cure, while not absolutely impossible is yet so exceedingly improbable, that it cannot be considered when discussing the treatment of the case."

Mr. Grieg Smith expresses his opinion with equal positiveness.

The five conditions comprised by Mr. Treves in the above statement are:—1. Peritoneal bands; 2. Omental cords; 3. The diverticulum; 4. Adherent appendix, or Fallopian tube; 5. Strangulation through slits or apertures. Mr. Treves adds, "I would urge that laparotomy should be performed as soon as the diagnosis is fairly clear, and if possible, *within the first twenty-four hours after the appearance of symptoms.*"

Now, in connection with these statements, I am prepared to offer two counter ones. I deny that it is ever possible to make more than the merest guess as to "acute strangulation by a band," in the early stage of the case; and I deny that acute obstruction is synonymous with strangulation by a band. To these denials I append an assertion, that the evidence is in favour of the belief that these forms of strangulation are often in early stages effectually relieved without operation; that, in fact, cases of recovery without operation, after very acute symptoms, are not uncommon. In corroboration of these statements, I may add that it is a not infrequent item in the past history of those in whom a fatal attack offers the opportunity for proof of the existence of a band, that the patient had recovered from one or more similar attacks in former years. I appeal further to the fact that hernial protrusions often slip back spontaneously, or with exceedingly little manipulation, and that in these internal strangulations the conditions are often such as to admit of the very easiest replacement. It is a mistake to suppose as these authors seem to do, that all strangulations by bands, &c., are from the first tight ones. In many, especially in those by a diverticulum, the space is large, there is no sharp edge, and it is not improbable that in the first instance the portion of bowel involved is quite small. It is only after strangulation has existed for some little time and more bowel has become involved, that the strangulation

becomes complete. Many a time at a post-mortem or an operation, the surgeon is astonished at the ease with which the involvement is reduced, and feels almost surprised that it had not slipped back spontaneously. As I have already said, clinical histories make it probable that such slipping back does often occur.

He who aims at operating within twenty-four hours will, I suspect, but very exceptionally find his diagnosis confirmed. It is not possible at that period to say whether or not obstruction (*i.e.*, obstipation) exists or not, and cases of gall-stones passing the common duct, of enteritis, of acute typhilitis and acute peritonitis may, each in turn, present all the other symptoms with quite equal severity.

I cannot help believing that cases of most acute abdominal symptoms, lasting for twenty-four hours, or much more, often recover under ordinary means; and it appears to me an assumption not warranted by the facts that none of these are instances of the spontaneous reduction of internal strangulations. It is not the fact that the severity of the symptoms during the first day is a measure of the real urgency of the case, or a safe guide to its diagnosis.

In what has just been said, allusion is made to reduction of a strictly spontaneous character, but if we have recourse to artificial aid, then I believe that a considerable proportion of cases of internal strangulation would be successfully replaced, if the measures were resorted to with promptness in an early stage. On this point, I have but to refer to what I have formerly said as to abdominal taxis. It is precisely in these cases of strangulation by bands that taxis is likely to succeed. It was in the *Medical Times* for 1858, exactly thirty years ago, that I first wrote on what I then ventured to call Abdominal taxis, as a method of treatment for cases of supposed internal strangulation. It was intended to comprise under that name various and somewhat differing details, having for their object the replacement by manipulation, or by altered position of the body, knuckles of intestine which had become twisted, had slipped behind bands, or in any other way had become subjected to mechanical compression. The term seemed appropriate in parallel contrast with that of Hernial taxis, as

in use for the manipulative reduction of external protrusions. It was not, however, by any means intended that abdominal taxis should end with manipulation only. On the contrary, perhaps its most important part consisted in altering the position of the patient's body, effecting its inversion, &c., and in these reversed positions subjecting it to vigorous succussion.

At the time that I wrote that paper I had taken great interest in some cases in which the abdominal cavity had been opened for the relief of obstruction, the unsuccessful result of which had naturally occasioned thought as to whether any other means could be devised. There was nothing absolutely new in any of the details of my proposal, but they had, I think, not previously been described and recommended in a systematic manner. With their novelty or otherwise I am not now in the least concerned, the sole question which I wish to bring forward being as to their usefulness. During the thirty years that have passed since the paper referred to was written, I have enjoyed a large range of experience both in hospitals and in private practice, and I have naturally taken a great interest in the treatment of abdominal obstructions. In the year 1871 a successful case of operation for intussusception led me to become a warm advocate for opening the abdomen in that form of the malady, but I still remained with but little zeal in reference to operations in cases where no positive diagnosis could be made. My opinions on this latter point have been several times publicly challenged by surgical friends, and as is well known to all, during the last ten years what is named exploratory laparotomy has very definitely gained in professional appreciation. It ought, perhaps, to have been stated that just before my first paper (1858) was written, I had received an impressive lesson from the recovery of a patient, in whom I had myself much wished to open the abdomen and had been deterred only by the representations of my colleagues that she would certainly die on the table if I did.

As I purpose on the present occasion to review the subject by the aid of the light which modern experience has thrown upon it, and as one result of this examination will be a more confident recommendation of abdominal taxis than I have

ever previously given, it may be well that I should first briefly describe the details of that procedure.

The first point in abdominal taxis is the full use of an anæsthetic, so as to obliterate all muscular resistance. Next (the bowels and bladder being supposed to be empty) the surgeon will forcibly and repeatedly knead the abdomen, pressing its contents vigorously upwards, downwards, and from side to side. The patient is now to be turned on his abdomen, and in this position to be held up by four strong men, and shaken backwards and forwards. This done, the trunk is to be held feet uppermost, and shaking again practised directly upwards and downwards. Whilst in this inverted position copious enemata are to be given. The whole proceedings are to be carried out in a bonâ-fide and energetic manner. It is not to be the name of taxis but the reality, and great patience and perseverance are to be exercised. The inversion of the body, and succussion in this position, is on no account to be omitted, for it is possibly the most important of all. I do not think that I ever spend less than half or three-quarters of an hour in the procedure.

There have been some curious misapprehensions as to abdominal taxis and its objects. Thus I find one surgeon speaks of using it in order to "break down adhesions"; another alludes to it as "massage," and several mention it with a kind of incredulity which I cannot but think springs from ignorance of its details. I make appeal to the well-known facts as to the looseness of many bands, the large size of many apertures, the slight character of many twists, the smallness of the strangulated loop in many cases, when I ask whether it is not very probable that measures such as I have described, if adopted before swelling has occurred or adhesions formed, may often effect replacement. They are such as would compel very considerable movement of the abdominal contents. In many cases on record strangulations of these kinds have been reduced at an operation, or after death, with surprising ease. It may also be remembered that in the olden days strangulated herniæ were not unfrequently reduced by succussion, aided sometimes, but not always, by inversion of the body. To make the intestines

drag upwards by their weight is, I contend, a very likely means of effecting the replacement of a protrusion which is not very tightly strangulated. Jactitation may be effectual even without inversion, and in cases in which the constriction is presumably fairly tight. I well remember many years ago seeing a woman in St. Thomas's Hospital, in whom this had occurred. Mr. South had visited her at her home at Blackheath for a strangulated femoral hernia, and failing in his attempts at reduction had sent her up to the hospital for operation. The shaking to which she was subjected on her journey reduced the hernia, and when she got to the hospital she was well. Surely such a fact should encourage us to the patient use of the much more methodical and efficient plan by inversion in cases in which the strangulation is probably not nearly so tight, and the alternative treatment far more dangerous.

It is to be admitted, respecting abdominal taxis, that it is a troublesome and somewhat undignified procedure, affording no scope for the surgical skill which a laparotomy requires. If, however, it can be shown to be effectual, no conscientious surgeon will allow himself to neglect it because it is disagreeable.

Now, inasmuch as successful cases allow of no dissection, it is obviously impossible to afford conclusive proofs that internal strangulations are ever reduced. A probability is all that can be offered. Before proceeding to relate cases, I will again mention that in many cases in which patients die with internal strangulation by bands, and the condition is placed beyond dispute by the autopsy, there is a history of similar attacks having occurred, and having been recovered from. It is fair to assume that in some at least of these the recovery was by spontaneous reduction. If reduction can take place, and does so frequently, without aid by the taxis, we are much helped to belief in the possible efficacy of the latter.

I once attended, with Dr. Powell of the City Road, a young gentleman who died with acute obstruction, and in whom we proved by post-mortem that the small intestine was strangulated by a diverticulum. I saw him on that occasion only in the very last stage of an acute illness. There was a history that I had seen him two or three years before for a similar

attack, from which he had wholly recovered. I believe that he had also come well through a previous one, in which I was not consulted. It was the confidence induced by these previous recoveries which led to the delay in the last illness.

As examples of successful taxis in acute intestinal obstruction, I venture to mention the following cases. Most of them have been already published, but I cannot afford to leave them out of memory. I shall, however, be very brief.

Case I.—I visited at one of the City hotels a commercial traveller, in consultation with a hospital colleague and the family attendant. My colleague had urged the immediate necessity for an abdominal exploration, and it was in consequence of this advice that I was consulted. It was an acute abdominal obstruction of three days' standing, and all ordinary measures, enemata, &c., had been well used. The lower bowel was quite empty, and there was distension, with urgent sickness. I suggested the desirability of trying abdominal taxis before doing laparotomy, it being quite understood that my colleague was to have his turn if I failed. We were able to obtain the help of two powerful policemen, and with their aid we shook the patient in various positions. We also placed him head downwards, and in that position administered enemata. Nothing occurred to denote success whilst we were in the house, but in less than an hour afterwards the bowels acted. Recovery ensued, and the gentleman is, I believe, now five and twenty years later, still living.

Case II.—This is a much more recent one. I mention it out of order because it much resembles the preceding one. A gentleman of about 30 was seized, after running downstairs, by a sudden and acute pain in the abdomen. It was so severe as to make him feel faint, and he was obliged at once to go to bed. He had much pain and sickness. He was attended by his own surgeon, and by Dr. Pye-Smith, the latter of whom had remained with him the whole night previous to my visit. Constipation, in spite of the usual measures, had lasted three days when I saw the patient, and his breath had a disgustingly stercoraceous odour. The lower bowel was quite empty. The case was not so urgent as the preceding one, for when I saw him there was no sickness. It was, however, sufficiently

alarming, and that there was mechanical obstruction there could not be any doubt. We put the patient under an anæsthetic, and then gave an enema, which returned quite free from fæces. We then proceeded in the usual manner. No encouragement was obtained until after long manipulation. We finally placed him head downwards, and tried vertical succussion. After this had been done a few times there was an escape of fæcal flatus from the anus. We placed the patient in bed, and within ten minutes the rectum was full of fluid fæces. I have no doubt from the symptoms, and the kind of fæces which came down, that the obstruction in this instance was in the colon. I have equally little doubt that it was something of the nature of a band or twist. The patient recovered, and has not had any other attack.

Case III.—I attended, with Dr. Brodie Sewell and Dr. Crosby, a gentleman who all but died with symptoms of acute obstruction. Our first efforts at taxis did not produce any result, and from day to day the propriety of opening the abdomen was discussed, and I had much difficulty in resisting it. The patient recovered perfectly under the persevering use of enemata, but as several days had elapsed since the last use of manipulation under an anæsthetic, I am not entitled to claim it as a case of abdominal taxis.

Case IV.—Some years ago I was one night called to the London Hospital to an urgent case of acute obstruction, which had just been transferred from the medical side. I did not operate, but spent an hour or more in abdominal taxis, inverting the body, &c., with the result that the bowels acted a few hours afterwards. In connection with this case I may record my experience during twenty years of surgeoncy to the London Hospital, that I never, so far as my memory serves me, encountered a case in which the post-mortem made me regret that I had not opened the abdomen. By this I mean that I never had a case of strangulation by a band or other means which would have been susceptible of definite relief by operation. I speak only of my own patients. My practice always was the use of anæsthetics, manipulation and enemata. Colotomy was done when indicated; but I never opened the abdomen but once, and that for intussusception.

I had two cases of absolutely complete reductions *en masse* of inguinal herniæ, a condition for which laparotomy has recently been practised, but in both of these I succeeded from the inguinal canal. If I were to make similar assertions respecting my experience in private practice, I should have to qualify them much more, for in three fatal cases the post-mortem showed strangulation by bands. In all these I had refused to operate, but at the stage at which I saw the patient I do not think that in any one would laparotomy have been successful, whilst in none had I had the opportunity for trying abdominal taxis in an early stage.

Before proceeding further with the citation of facts, I will offer the following suggestions as rules of treatment:

Memoranda as to Details of Treatment.

In all cases in which intestinal obstruction is recognized, whether severe or mild, one of the first measures adopted should be the use of an anæsthetic. Under the full influence of ether intestinal spasm will be relaxed, and the passage of scybalæ, gall stones or other impediments favoured.

Whilst the patient is under the anæsthetic the surgeon should make a careful examination of the abdomen, with a view to diagnosis. He should also use enemata, and practice abdominal taxis in full detail.

An accurate diagnosis of the cause of obstruction is not in four out of five cases possible, and the merit of early use of anæsthetics and abdominal taxis is that whilst eminently adapted to the relief of many, it is hardly likely to be really prejudicial to any. The only cases in which the surgeon is in the least likely to regret having employed it are cases in which peritonitis simulates obstruction.

If under the use of the anæsthetic the surgeon has neither been able to relieve the symptoms nor to make a diagnosis, he will now do well, excepting in the most severe cases, to wait a while, and enforcing a starvation regimen, note the development of symptoms.

If the symptoms on recovery from anæsthesia and taxis are severe, if there is urgent vomiting and much pain, then it may be well to lose no time in doing an exploration-laparotomy.

In many cases if anæsthetics be used before distension of the abdomen has taken place, the discovery of a sausage-like swelling may make the diagnosis of intussusception clear, or of an indurated mass that of a malignant stricture, or an impacted gall stone may have been felt, or local swelling may have helped to the recognition of abscess (typhilitis or otherwise). In each of these cases the diagnosis will suggest the suitable treatment.

If an intussusception, recognized in a child under one year of age, the prospect of recovery after operation is so small that it will be better to rely upon repeated and patient efforts at the taxis by enemata and inversion. If, however, the child be older, and especially if the intussusception be long and presenting at the anus, then an operation will offer the best chance of relief.

If the history of the case, or the discoveries is made under the anæsthetic, point strongly to plugging by a gall stone, then belladonna should be freely given, and if there is much pain the long-continued use of anæsthetics may be tried. Very systematic attempts should be made under anæsthetics to get enemata to pass the ileo-cœcal valve. This clearly is the most rational method by which to facilitate the slipping of the calculus. If the distal part of the gut could be distended with fluid, the stone would be almost certain to move onwards when such fluid escaped. Under no circumstances should an operation be done, for however urgent the condition may seem the probability is great that under these measures recovery will ensue.

If the diagnosis be a malignant stricture colotomy should be attempted, and it will usually be wise to prefer the right side.

Distension of the cæcum and fulness of the loins, one or both, are valuable symptoms as indicating the need for colotomy. It must be remembered that distension of the cæcum is apt to occur in all cases of colonic impediment, without regard to its precise place or degree of completeness. It is a very valuable symptom of stricture.

If under the anæsthetic a tumour, presumably an abscess, have been found in either iliac region, then an exploration should be made from the outer side. The error, which has

been several times committed of late, of opening a post-peritoneal abscess through the peritoneal cavity should be carefully avoided.

It may be that the examination under the anæsthetic has neither relieved the constipation nor thrown any light upon its cause, and that the symptoms recur afterwards much as before. If the case is not very urgent the surgeon may now wait a while, and he must carefully again go over the history and note the development of the symptoms. Tenderness, absence of peristalsis, and a smooth, firm, barrel-like abdomen, suggest peritonitis, and it may be well to incise and wash out the abdomen. Slow increase of the abdomen, without tenderness, and with peristalsis, especially in an aged patient, point to stricture and lumbar colotomy. An irregular course, protracted symptoms, and the history of former attacks, in a young or middle-aged patient, point to obstruction by adhesions.

In cases which have persisted long, and in which diagnosis remains in doubt, the surgeon has to choose between several plans of treatment as to the relative superiority of any one of which it is impossible at present to speak with confidence.

1. The rest, opium and starvation plan (what has been called Sydenham's plan) recently advocated by Mr. Thomas. It consists chiefly in abstinence from all interference, and has some negative advantages.

2. Entire abstinence from mouth feeding, but free use of nutritive enemata.

3. Repeated recourse to abdominal taxis with large enemata.

I append the following cases, quoted from various sources, as illustrations of various events as regards the symptoms and treatment of cases of obstruction. Some pains have been taken to display each case in such a manner that its lesson may be easily caught, and in order to this result the "space-for-time method" has been adopted. Each day occupies the same space. To each case I have appended my own comment or criticism, written I trust, when I felt myself obliged to differ from the authors, in no ungenerous spirit.

CASE V.—*Study of Symptoms in a typical case of Twist (volvulus), the patient having been in the Hospital at the time of the beginning of symptoms (Clinical Society's Transactions,* vol. vi. Mr. Callender).

A soldier, aged 46, in good health, who was in bed in the Hospital, after removal of a fatty tumour.

DATE.	DAY OF DISEASE.	DETAILS.
Oct. 28	1	Two days after the operation he complained of pain in back and abdomen. He was already confined to his bed in the hospital.
29	2	Pain subsiding; slightly sick; constipation. It was not thought a serious case.
30	3	Sickness and hiccough. Obstipation continuing.
31	4	Injections and aperients used, but without effect, excepting to increase sickness.
Nov. 1	5	Retchings constant. Vomited matters bile-stained.
2	6	Injections as before returned unaltered. Symptoms persisting.
3	7	The history again carefully examined, but nothing found to throw light on diagnosis. No localized pain or tenderness. Abdomen distended and coils visible.
4	8	More feeble.
5	9	Some fæcal matter obtained by oil injection. Debility increasing.
6	10	Death.

AUTOPSY.—"Three inches above the ileo-cæcal valve a coil of small intestines was twice twisted round a portion of the mesentery, and the canal of the bowel was thus completely obstructed. There were no recent inflammatory changes about this part of the intestines, but from the dense and contracted condition of the bowel where twisted, it must have been for some time narrowed at this point. When I moved aside coils of intestine, which lay in front of the obstruction, more or less adherent amongst themselves by means of old and tough peritoneal bands, and when I endeavoured to, and after some sorting of the parts succeeded, in unrolling the twisted canal, I was glad not to have attempted the operation during the life of the patient, for it would have been impracticable."

CRITICISM.—*It seems not improbable that in this case some old adhesions favoured the formation of the twist. It may be alleged that an early operation would have found the unravelment not so difficult, but then it must be remembered that the early symptoms were but slightly*

marked. The case was not considered a serious one until several days had passed. It is in order to illustrate the vagueness of the early symptoms that I have quoted the case.

CASE VI.—*Nine days' Obstruction without history, and quite sudden onset. Laparatomy. Malignant Stricture of Sigmoid Flexure found. Establishment of an artificial Anus. Recovery.* (*Clinical Society's Transactions*, vol. xii. Dr. Church and Mr. Howard Marsh.)

A gipsy woman, aged 40.

DATE.	DAY OF ILLNESS.	DETAILS.
Oct. 7	1	Whilst stooping at field work she was suddenly seized with severe pain, which was followed by sickness and constipation. She had had no trouble with her bowels previously.
8	2	Constipation and sickness in spite of aperients.
9	3	Persisting symptoms.
10	4	,,
11	5	,, ,,
12	6	,, ,,
13	7	,, ,,
14	8	,, ,,
15	9	Admitted into St. Bartholomew's on the ninth day of obstipation. Very ill; abdomen distended. Colon especially distended.

TREATMENT AND RESULT.—*The abdomen was opened in mid-line.* A stricture in sigmoid flexure was easily found. The colon above was opened and stitched

to the wound. She was in a very exhausted condition for four or five days, but afterwards did quite well.

COMMENTARY AND CRITICISM.—*As in the previous case, but in a converse manner, the early symptoms were misleading. They might have led to the suspicion of a twist or band, rather than of malignant stricture. The patient was only* 40.

Colotomy would have been safer, and was indicated by the distension of the colon. In a very similar case at Leeds Mr. Teale, having found the stricture by laparotomy, closed the exploration opening and at once did a lumbar colotomy. In each case the abdominal exploration only added to the danger. It would have been better to have done first a lumbar operation, and if it proved useless then to open the abdomen.

CASE VII.—*Acute Peritonitis with Effusion. Abdomen opened on third day. Supposed Volvulus of Duodenum. Recovery.*

A healthy man (dyspeptic), aged 23, under the care of Mr. Barker.

DATE.	DAY OF ILLNESS.	DETAILS.
Nov. 14	1	Much flatulence and a loose motion, with feeling of sickness. In a few minutes most violent pain in the abdomen. Vomiting soon after the pain began.
15	2	
16	3	Pain and vomiting as before. Seen by Mr. Barker in the afternoon. Abdomen distended and tympanitic, except in flanks.

TREATMENT AND RESULT.—Laparotomy 50 hours from onset. Median incision; odourless gas and much fluid escaped. The intestines were congested, and showed flakes and patches of lymph. The whole length of the bowel was carefully examined, but no band or stricture was found. Mr. Barker believed that he had (without knowing it) unfolded a twist of the jejunum. The patient recovered.

CRITICISM.—*Although a volvulus was suspected, it must be admitted that there is no proof that the case was more than one of acute peritonitis. On the latter supposition, however, no special cause could be assigned. If it were peritonitis only, it is a triumphant result for operation treatment, and washing out of the abdomen. If it were a volvulus, and of such a slight nature that the operator without knowing reduced it, then it is fair to suggest that it was just one of the cases which manipulation and inversion of the body might easily have shaken right, especially if employed in an early stage.*

CASE VIII.—*Gradual development of obstruction-symptoms; without urgent distress. Laparatomy on ninth day of Obstipation. Establishment of a Cæcal Fistula. Recovery, but with relapses of symptoms, necessitating Colotomy* (*Clinical Society's Transactions*, vol. xii. Cayley and Lawson).

A printer, aged 23, who had suffered more or less from constipation and colic.

DATE.	DAY OF ILLNESS.	DETAILS.
May 29	1	Seized with colic while at work. In the evening had vomiting.
30	2	Obstipation and sickness.
31	3	Obstipation, colic, and vomiting.
June 1	4	The same symptoms, with gradual increase in severity.
2	5	The same. Continued fæcal vomiting.
3	6	Admitted into Middlesex Hospital under Dr. Cayley. Twisting pain and distension; urine free; pulse 108; temp. 99·2°. The bowel would hold two quarts.
4	7	Pulse 100; temp. 98·8°. Increase of distension, but less vomiting.
5	8	Pulse 104; temp. 99°. The vomiting continued at intervals, but the patient was not in much distress. He could still amuse himself by reading.
6	9	*Mr. Lawson opened the abdomen in middle line.* Intestines distended and red, but free from lymph. Cæcum enormously distended. No cause of constriction found. Cæcum punctured and stitched to wound with very great difficulty. Operation very troublesome.

DATE.	DAY OF ILLNESS.	DETAILS.
June 7	10	Pulse 161; temp. 103°.
8	11	Better.
9	12	Improving.
10	13	Improving.
11	14	The bowels acted per anus, and from this date he recovered, but with relapses.

COMMENTARY AND CRITICISM.—*Mr. Lawson expresses his opinion that it would be ultimately needful to open the colon. He also adds, in which all will agree, that a right or even a left colotomy would have been the best operation in the first instance. The obstruction was probably in the sigmoid flexure.*

The case is a good example of the enormous distension of the cæcum, which sometimes attends obstruction at a great distance. The operation was obviously a very difficult one, and very nearly proved fatal. A right colotomy would have been easy and safe. The case is very like one of my own, in which we found a malignant stricture. In a subsequent report (Vol. xiii. *of Clinical Society's Transactions), Mr. Lawson gives the conclusion of the case. The man died about ten months after the operation. The autopsy showed colloid cancer of sigmoid flexure of colon and a stricture at the hepatic flexure. A right colotomy would therefore have been the best operation.*

CASE IX.—*Abdominal Obstruction. Twenty-three days' absolute Obstipation. Starvation Treatment, with Opium and Belladonna. Further periods of Obstipation. Bleeding from Bowel. Final recovery after a fifty days' most critical illness* (It is published in the *Liverpool Medico-Chirurgical Journal*, January, 1888).

The subject of the following narrative was a lad of 17, under Dr. Barr's care in private.

DATE.	DAY OF ILLNESS.	DETAILS.
Sept. 24	1	Caught cold, but took a hearty supper afterwards.
25	2	Constipation began after severe griping pain and purging; severe pains in abdomen.
26	3	Persisting and complete obstipation.
27	4	Pain; vomiting; no flatus passed; obstipation complete.
28	5	The same symptoms; temp. 100°. Supposed to be peritonitis.
29	6	Severe pain; legs drawn up; abdomen tense.
30	7	Face pinched; pulse smaller and weak; vomiting and hiccup; abdomen distended.
Oct. 1	8	Incessant hiccup; thought to be dying; skin cold and clammy; vomiting offensive.
2	9	Still very ill; pulse 130; vomiting and hiccup.
3	10	Dr. Wallace saw him; pulse 130.
4	11	Much the same ,,
5	12	,, ,,
6	13	,, ,,
7	14	,, ,,
8	15	,, ,,
9	16	Remaining in a most critical condition.
10	17	,, ,,
11	18	,, ,,
12	19	,, ,,
13	20	,, ,,
14	21	Is much emaciated, and has persisting symptoms.
15	22	,, ,,

DATE.	DAY OF ILLNESS.	DETAILS.
Oct. 16	23	Is much emaciated, and has persisting symptoms.
17	24	" "
18	25	A liquid motion, the first since beginning of illness.
19	26	Flatus, but no fæces.
20	27	Griping pains; peristalsis visible.
21	28	" "
22	29	" "
23	30	Large semi-solid motion.
24	31	Constipation recurred.
25	32	" "
26	33	A large semi-solid motion; nothing found in it.
27	34	
28	35	A semi-solid motion, with large quantity of fluid blood. Collapse.
29	36	Extremely weak.
30	37	He remained during the next ten days very weak, but improving.
31	38	
Nov. 1	39	Gentle massage treatment. Hypodermics still needed once a day.
2	40	
3	41	
4	42	
5	43	
6	44	
7	45	
8	46	A natural motion of large size.
9	47	Improving.
10	48	"
11	49	After this steady recovery. Regained perfect health, and is quite well at the present time.

Dr. Barr's Diagnosis.—Dr. Barr has kindly written for me the following note as to his final diagnosis: "I may say that I looked upon the case as one of

intussusception, though this diagnosis might be questioned, as there was never any slough discovered in the motions. Anyhow the obstruction was complete, and was not due to hardened fæces. The obstruction was low down, but not in the colon, as it was not involved in the abdominal distension, nor in the violent peristalsis which occurred in large rolls across the whole front of the abdomen. I feel still inclined to look upon the case as one of intussusception about the ileo-cæcal valve."

CRITICISM.—*I have reproduced this remarkable case because it seems to illustrate some points of great interest. It may be said to be almost impossible even with its completed facts before us to form any satisfactory diagnosis as to the cause of the long-continued symptoms of obstruction. This difficulty was present at all stages. In the early stage the symptoms would have justified an operation whether the diagnosis were peritonitis, strangulation by band, or intussusception. An operation then would probably have much shortened the case, but in which direction may be open to doubt. That severe symptoms in the onset—those of "acute obstruction"—are not always followed by death when operative treatment is avoided the case proves. The patient's life was saved under the most patient abstention from all heroic measures. It must be admitted, however, that the lad was repeatedly, and during long periods, in the most urgent peril. The diagnosis suggested by Dr. Barr seems, on the whole, the most probable, though not unattended by difficulties. No bloody mucus was voided during the early stage, and no portion of intestines was detected in the later ones. That it was not one of peritonitis only, the existence of visible peristalsis at a late stage may be held to prove. The advocates of early exploratory operations and those who condemn them have almost equal right to claim the case as supporting their views. It was probably at all periods after the first week very wise to abstain. Only during the earliest period is it likely that the abdomen could have been opened with any chance of success.*

THREE CASES OF A SEVERE AND AGGRESSIVE CACHEXIA IN ASSOCIATION WITH SCAR-LEAVING ERUPTIONS ON THE EXTREMITIES.

Two of the three cases which I have to relate under the above title have ended fatally. The third is a far less severe case, but usefully illustrates an early stage of the malady.

The cases of Mrs. R—— (Case 1) and Miss G—— (Case 2) present many features in common. In each the patient was a woman, and undoubtedly of very feeble circulation from birth. In neither of them, however, did the disease of the skin, which was one of the most prominent features of the last illness, begin until adult life. Miss G—— was 22, and Mrs. R—— was 31. In both patients the hands, feet, and face were the parts affected, exactly as in Kaposi's disease, and in both the influence of local irritants and of cold in inducing the symptoms was definite. In this latter feature they approached, indeed probably partook of, the nature of Raynaud's malady. In Miss G—— the feet were very severely affected, whilst in Mrs. R—— they suffered but very little. The conditions in both differed from chilblains, in that there was a diffuse congestion of the skin with a tendency to local ulcerations. The coincident failure in health and strength which was very marked in both cases was a feature which placed them at a great distance from ordinary chilblains. In Miss G—— stigmata and pigmented patches were produced exactly as in Kaposi's disease, whilst in Mrs. R—— an earthy pallor of the skin of the face was the chief symptom. She had no stigmata, but on the cheeks there were patches which were deeply pigmented. In Mrs. R—— there were some slightly marked erythematous patches on one thigh, which ended in the production of scars without ulcers.

Those who hold that it is always possible to assign diseases to definite categories, and always a duty to attempt it, may perhaps assume a critical attitude when I say that I believe that these cases were examples of mixed causation, and they partook of the essential nature of lupus erythematosus, Raynaud's disease, and Kaposi's disease. A derangement of the forces of the circulation, giving liability to general chilliness and especially to bloodlessness of the extremities, is of the very essence of Raynaud's malady. A congenital structural pecularity of the structure of the skin of the extremities, making these parts liable to inflame from exposure, to produce stigmata, pigment patches and ulcerations, is the basis of Kaposi's malady. There is no reason whatever why Raynaud's vascular susceptibility should not chance to occur to a patient in whom a certain degree of this structural peculiarity had from the first been present. Lastly, in lupus erythematosus we have an infectious form of inflammation of the skin prone to attack the face and hands of feeble persons and attended by risk of attacks of erysipelas. It is quite possible that this type of inflammation might be engrafted on the conditions just specified. In other words, the partnership which I suggest is a very possible one. There is nothing specific in any one of the maladies named, and no reason whatever why they should not mix together and produce a hybrid, or, rather, a mongrel result. Should the combination now described be found to be a frequent and definite one, it may then become suitable to devise a special name for it. For the present, however, the facts are not sufficiently numerous, nor the parallelism of the cases sufficiently close, to make such a course desirable. Some further references to the points just adverted to will occur as I proceed to narrate the cases.

CASE I.—*A Fatal Illness extending over Three Years and attended by General Rheumatism; Great Chilliness; Anæmia of the Extremities; Pigmentation; Gangrene of the Skin in Patches; Loss of Hair; Dry Mouth; High Temperatures, &c., &c.*

I was first consulted by Mrs. R—— in September, 1886, when

she was brought to me by Dr. Johnstone of Melton Mowbray. She appeared to me to be the subject of crippling rheumatism, walking with both hips stiff, and with many of the small joints of the fingers more or less affected. She was extremely cachectic and feeble, and I was told that she had suffered from menorrhagia. Her pallid aspect and nauseous odour suggested uterine cancer. Her age was thirty-five. She had no children. An uncle had suffered severely from gout, but not her father. She told me that she had never been laid up in bed by rheumatism. It had begun insidiously in November of 1882, and her right forefinger had been first affected. In June of that year she had had a fall from her carriage, which she seemed to think had brought out the chronic rheumatism. I ordered her quinine and nux vomica, and a dose of guaiacum every night. I saw her again about a month later, when she appeared decidedly better. Both these consultations were, from circumstances over which I had no control, much hurried. After the second I did not see her again for four months. On January 3, 1887, she came to me again and drew my attention to other matters. The skin of her hand, fore-arms, face, and feet, had for the last six weeks been affected by little ulcerations which occurred in groups, and left conspicuous white scars. Many of her nails were inflamed and suppurating at their roots. Her fingers were thin and wasted, especially at their tips. Several of the fingers presented ulcerations of considerable extent, and on the middle finger of the right hand there was an irregular slough, as big as a sixpence, which was rather deep. Her fingers were dusky and mottled, and I was half inclined to think that we had to deal with a case of diffuse morphœa.* This suspicion was in part confirmed by the

* The following extract from a letter by the patient's husband, dated December 24, 1886, describes the condition of the fingers. I did not see them then:—"I am sorry to have to write to you again, but one of my wife's fingers is so very bad that I should like to hear your opinion about it, or if my description is not sufficiently clear I would bring her up to town to see you again. It is the third finger of the right hand, on which there was a mark caused by the wool in knitting, which had a seared appearance; you looked at it when she saw you last. Nearly three weeks ago the finger became very inflamed and irritable, and yellow places came in it; the second joint also was very tender to

state of her face, for the lips were more or less stiff and wooden, exposing the teeth. It was impossible, however, to prove any parchment condition in the skin of the face. Her hair had almost wholly fallen off, and there were some small ulcers in the middle of the top of the head. Her tongue was red, smooth, beefy, and dry. On the date of which the above notes were taken Mrs. R—— had come up from the country. She seemed so weak that I feared for her life if she returned, and advised her to seek admission in a Home and go to bed at once. This she did, and her condition during the next night was so urgent as to cause great anxiety.

My next notes were written on *February 5th.* Mrs. R—— has now been for a month at Mrs. Mann's Home. The chief treatment has been by the administration of small doses of opium in combination with tonics. This has had the effect of making her more comfortable, and has had no material inconvenience except constipation. Her temperatures have never fallen below 100°, and have usually been 101°. Her tongue has always been red and clean, and, with her lips, quite dry. She has taken a large quantity of fluid food. Her face is always earthy like that of a corpse, and if she closes her eyes she looks exactly as if dead. She has slowly lost flesh, and is now very thin. On one occasion I left off the opiate, but she became so restless and low that we were obliged to resume it. The fingers have slowly improved. She tells me that if she gets out of bed both fingers and toes ache severely. It has been very difficult to prevent a bedsore on the sacrum. Patches of erythema are prone to show themselves wherever there is the slightest pressure; and in the middle of these minute streaks of skin become tallowy and then shrivel, leaving a scar. This has occurred over both outer malleoli, and in front of both tibiæ. These patches are, however, by no means restricted to parts irritated by pressure. On the lower part of the abdomen and over the fronts of both thighs erythematous patches covered with small lichen spots have

the touch and much swollen. It had been poulticed for some time, but now she only puts lint and cream upon it, as she cannot bear that it should be exposed at all to the air, and one place is very deep. The second finger on the same hand looks as if it were going in the same way. The whole finger looks so peculiar that Mrs. R—— consulted a doctor in Durham."

formed. These patches have slowly enlarged, and have left as they faded a number of small scattered scars. Similar patches have been present behind the thighs. They show some tendency to spread at their edges like lupus erythematosus, and my impression is that they are of that nature. Inside the ears, also, pustules have formed, and one in the left has been attended by a small slough. On many parts of her skin Mrs. R—— is now dark enough to suggest a suspicion that the supra-renals may be diseased.

At this date Mr. R—— gave me the following additional facts as to his wife's health. At the time of their marriage she was in fair health but very pale, and liable to suffer extremely at her monthly periods. She was a younger child of a large family, and her brothers and sisters are healthy. Soon after the rheumatism began, or possibly before, she used to suffer from dying of the hands. All her fingers would on the slightest exposure become white and cold and subsequently livid. Her feet also were often "like ice." Later on her fingers seemed tender, and she would sometimes cry out when taken by the hand. About a year ago, a more definite proof of the difficulty with which nutrition was maintained occurred in the fact that when her worsted in knitting played over one finger a dent was formed. There was no ulceration, but a depression almost like a scar. Another similar shrivelling of a patch of skin occurred on one forefinger, where the handle of the coffee-pot had rested. A journey which Mrs. R—— took to Matlock Baths was an unfortunate one. She failed in health there, and the eruption on the hands began to show itself. It was first supposed to be due to bites of gnats. Around the gnat-bites little red rings formed, and scars were produced. After this there was inflammation around the root of the nails, then what she called "corns" on some of the fingers. On some parts it was thought that scars resulted without any ulceration having preceded them. She had great pain in the fingers, and her strength rapidly failed. After the fingers inflamed the tendency to die away ceased. The place where a large slough formed was believed to be the same as that which had been irritated by the worsted.

The following notes were written *March* 21, 1887. "Mrs.

R—— is to leave London in a day or two. She has been in bed at Mrs. Mann's for nearly three months. Under the influence of small doses of opium she has made steady improvement. Once when we tried to leave it off, on account of sickness, she became restless, faint, and very feeble. Nepenthe, in twenty minim doses three times a day, has suited better than the liquor opii. Although she has gained a little in strength she remains still very weak, and is emaciated to an extreme degree. All her sores have healed, and her fingers are now sound. The face and body generally are deeply pigmented, the skin generally being of a sallow brown tint, with spots of much deeper colour in many places. The rheumatic stiffening of her hips is better. Her tongue is always beefy, and perfectly clean, but it is not so dry as it used to be. She eats and drinks well. The scalp hair is extremely thin and short, and scanty to such an extent that she is almost bald. In reviewing her case the following points seem worthy of special attention. The disease has differed very definitely in some features from Raynaud's disease, and has in others come much nearer to lupus erythematosus. Thus the sloughs on the fingers have never been exactly at the tips, but at the sides of the digits, near to their ends. The sloughs in the ears were inside the concha, a part not exposed to injury and not liable to chilblain. The large patches of lichenoid erythema have been on the abdomen, thighs, arms, face, and scalp, regions not specially exposed to alterations in blood supply. The patches which have been gangrenous have always been very painful during the separation of the slough. They have occurred on the fingers chiefly, but once or twice on the ears, and once on a toe.

"The patches which I have described as lichenoid erythema have been very large in size, spreading at their edges, but in places not well defined. They have occurred on the face and head, on the arms, abdomen, and thighs. These patches were very slow in their changes. At first slightly congested, much pigmented, and rough all over with dry lichenoid spots, they became in the course of six weeks or a couple of months gradually free from congestion and less rough, but still darker in colour, and showing here and there

small scars. A few of the scars were abruptly margined, and have been preceded by definite loss of tissue, but others were of a sub-epidermal character, and simply white without unevenness of surface. I carefully watched the formation of this kind of scar on several parts, especially on one upper eyelid, and over one external malleolus. A small area of skin, not perhaps bigger than a split pea, became quite white and like tallow. It looked as if it were going to slough, but no sloughing took place, and after a few weeks' duration a silvery-white scar was all that remained. Some of these little spots appeared to have resulted from local pressure or irritation, being a sort of microscopic bedsores, but others, as for instance one on the eyelid, did not admit of any such explanation.

"The morbid processes have differed from those of lupus erythematosus in that they have tended to a tolerably rapid spontaneous subsidence. Thus the whole of the scalp and face have got quite well, being left simply mottled by pigment stains, and somewhat marbled by scars. Although slow in its progress, in no place has the disease shown a tendency to persist indefinitely. I may add that I have never seen localized gangrene as a part of the process of lupus erythematosus. We must bear in mind that it is quite possible that our patient is the subject of disease of the supra-renal capsules, and that this may account for the severe constitutional symptoms and the great tendency to pigment stain."

After Mrs. R—— returned to Melton I did not see her again. She was carefully attended by her own medical man, and was seen by Dr. Newman, of Stamford. On April 5, 1887, I heard from her husband that she was going on fairly well, he thought, and gaining a little in flesh and strength. Most of the ulcers were healed, and the temperatures were normal. A month or two later she was taken to West Malvern, where she was attended by Dr. William Murphy. After a few weeks' stay at this place she became suddenly much more weak. She died on July 10th. She had suffered during the last day or two from severe pain over the liver, and Dr. Murphy recognized "a distinct swelling in that region." She had also a considerable quantity of albumen in the urine, and some

bronchitis. I obtained the husband's consent to an autopsy, and Dr. Murphy and Dr. Weir had kindly undertaken to conduct it. We were baffled, however, at the last moment by the resolute refusal of the lodging-house keeper to permit it in his house. Thus the opportunity for determining whether or not the supra-renal capsules were affected or whether any other form of abdominal disease was present was most unfortunately lost. The great debility which had attended the last six months of life, and the rather sudden failure of strength which immediately preceded death were very like what often occur in Addison's disease. If, however, the malady were of that nature, it was clearly a complicated case, for I am not aware that the tendency to inflammation and gangrenous implication of skin has ever been noted in connection with it.

CASE II.—*Simulation of Kaposi's Disease, and of Lupus Erythematosus, &c.; Extreme Emaciation and Debility; Dry Mouth; Great Chilliness. Death from Erysipelas.*

Miss G—— was put under my care in June, 1886, suffering from a most peculiar condition of her skin. She was extremely emaciated, her lips were quite dry, and were somewhat cracked, and the whole of her mouth was dry. This dryness of mouth and lips had been present for about two months, and obliged her to take some fluid every few minutes or so. The state of her face much reminded me of Kaposi's disease, the skin being somewhat tight and covered with stigmata and spots of pigment. Some of the pigment spots looked like little moles, but she assured me that they had all come recently. When I saw her there was no saliva whatever in the mouth, but the tongue was not actually dry, nor were the insides of cheeks so dry as in the case of Mrs. R——. Her palate was of a yellowish white colour, and looked like that of a corpse. Her temperature at the time of her visit to me was 100°. Her bowels were reported to be somewhat costive, and she said that she was always feverish through the night and slept badly.

In inquiring as to the antecedents of her illness, I learned that Miss G—— had formerly enjoyed good health. She had

been very active, and had never had a day's illness until the present ailments set in about a year ago. She had always, however, had "a miserable circulation," and hardly ever known what it was to have her feet or hands warm; when cold weather set in she had always suffered from chilblains. Her expression was "that she never felt fatigued, but was always bitterly cold." Such was her condition of health, when in the spring of 1885, she began to have spots on the face. Her face, nose, and ears were, as she described it, "of a red glow." She consulted a distinguished specialist, who called it eczema, but after several months of treatment did it no good. In July, of the same year, she had what was believed to be spontaneous ptyalism. As her teeth became loose it may, however, be doubted whether mercury had not been inadvertently given. In the autumn of the same year she went to Switzerland, and came back a little better. She spent her winter at Sydenham, under the care of Dr. Waller, by whom she was afterwards referred to me. Six weeks before coming to me she had had a more acute illness, which had been attended by constant vomiting, and subsequently by jaundice (possibly erysipelas). She was a lover of hot weather.

After the date to which the above notes refer I saw Miss G—— once or twice, during the autumn of 1886. Under the use of tonics and some local measures she got somewhat better, but at the date of her last visit to me (Oct. 17th) the skin of her feet, hands, and face was still in the condition described. Her toes, fingers, and ears showed superficial ulcerations on many parts, and the skin was everywhere more or less glossy and tight. There were no definitely margined patches of erythema, but numerous stigmata were scattered over the affected surfaces. The skin of her body and of all parts excepting those mentioned was quite healthy. I recommended that she should on no account winter in England, and arrangements were made for her to go to Alassio in the Riviera. She set out late in November. Severe discomforts were encountered on the journey from changes of carriage and exposure to cold during bad weather. Her feet became inflamed and very painful, and when she reached Alassio, on December 3rd, she was very ill. A week later she

had a temperature of 105°, and a pulse of 180. In spite of a little improvement subsequently she died on December 16th. She had been more or less delirious for several days, and during the last three days there had been jaundice. The inflammation of her feet had been diagnosed as erysipelas.*

It might seem that in this case we have a sort of connecting link between Kaposi's disease and lupus erythematosus and diffuse morphœa. From the former it differed in that the inflammation of the feet, face, and hands did not begin in early childhood; and that it was preceded by conditions of very definite defect of circulation. As regards the other features assumed by the disease they were exactly those of that malady, and a similar statement is true as regards the parts affected. I do not know that a tendency to erysipelas has been specially noticed in Kaposi's disease. It is well known to be a frequent cause of death in lupus erythematosus, especially in those forms in which the disease affects large areas on the face and scalp, and involves the hands also. It is very rare for lupus erythematosus to attack the feet, which was the case in this instance.

CASE III.—*Debility and extreme Chilliness in association with Eruption in the Ears and Hands.*

The case which I am about to append is, I feel sure, of the same essential nature as the two preceding ones, though in a far milder form, and not as yet in any way threatening to end fatally. We have, however, as features common to the three, extreme chillings, great feeling of weakness and an erythematous, scar-leaving eruption, which affects the ears, hands, and finger nails.

Mrs. G——, aged 36, of dark complexion, thin, and very pale, came under my care for the first time on February 2, 1887. Her trouble was "these places on my hands which come every winter." She showed a number of little

* Dr. Beatty, of Alassio, under whose care she died, was kind enough to send me the particulars of her last weeks of illness. There could be little doubt that the cause of death was exhaustion from erysipelas, with possibly affection of the meninges of brain. She died comatose.

isolated erythematous discs on the fingers and backs of hands. Some had faded and left ill-marked scars. In the concha of each ear there was also an erythematous peeling patch. She had no eruption on the face. She told me that she had had the patches on the hands and ears every winter for three years, and that on the first occasion the feet were also affected. Although they came only in winter she did not incline to associate them specially with cold, but rather with residence in London. She always got rid of them, she said, when the time for going into the country came. In London she always felt weak and ill, and lost appetite. She had never in her life had chilblains. During the whole of the three years that she had been liable to the eruption, and for some time previously she had been out of health in the direction of constant lassitude and strengthlessness. Although she had been married ten years her first and only child had been born only eighteen months ago. She did not suckle it, and had been quite regular since the confinement. She suffered much from indigestion, and was usually sleepy and dull after meals. Her feet were cold occasionally, but there was no proof of any definite feebleness of circulation. She was both rheumatic and neuralgic, but knew of no history of gout in the family. She was accustomed to take a little claret.

Dermatologists will probably be inclined to claim this case—marked by erythematous scar leaving discs in the hands and ears—as one of lupus erythematosus. As such I am myself inclined to regard it, but it is certainly very exceptional in that malady for the face to escape, and also for the patches to wholly disappear in summer. I wish also particularly to emphasize the fact that the eruption appeared to connote a definite and progressive failure in health.

Mrs. G—— came to me again about two years after the above notes were taken. She was still liable during cold weather to the occurrence of the erythematous discs on her hands, and showed me a considerable number of them. They were, she said, persistent through the whole winter and, unlike chilblains, some of them occurred on the palmar surface of the fingers. They were abruptly margined, about

a line in elevation, and presented flat scaly spots, which peeled. Some were about the size of peas, and a few nearly as large as shillings. They occurred on the hands only. There was no general duskiness of the fingers, nor any change in the condition of the nails. Mrs. G—— told me that she had never been in good health since I had last seen her, and especially that she was never able to keep warm. She had a very feeble pulse and was thin and pale. She was liable to diarrhœa, and suffered much from neuralgia, especially on the top of the head. She came to me on this second occasion, not on account of the hands, but for an inflamed mouth. This was of only a few days' duration, and probably accidental. I found the mucous membrane over Wharton's ducts swollen and œdematous. She said that she almost constantly felt chilly, but that if she went near the fire it made her skin itch. She had spent the winter of the year before in the Riviera, but had been ill all the time with severe catarrh, which settled on her chest. Mrs. G——'s own expression was, "I am always chilly, and in winter dreadfully cold. I often feel as if I had not any blood in me, cold all through me." Her condition did not appear to be influenced in any way by the menstrual function, for she was quite regular, and not more chilly during the menstrual period than at other times. Having been informed that she had lived for several years in a house with a north aspect only, I strongly advised that she should make a change and secure sunny rooms. She was about to leave for the south of England when I last saw her.

I must leave these remarkable cases, with such comments as are already made, to tell their own story. At some future time, and with the help of other fragments of evidence, I shall hope to recur to the subject. So far as I can judge, the conditions described were not those of any new disease, but the consequences of a very exceptional partnership of morbid causes.

DISEASES OF THE EYE.

No. I.—*On Increase of Tension in the course of Syphilitic Keratitis.*

In the course of interstitial keratitis from inherited syphilis, there is now and then increase of tension. I have had to treat three or four cases in which this symptom, together with unusually severe pain and intolerance of light, has occasioned great anxiety as to the safety of the eyes. I have usually thought it best to perform iridectomy. In all cases in which I have done this operation the relief has been immediate and the after-progress most satisfactory. The operation, however, has its drawbacks, for although the cornea may for a long time remain more or less opaque, it usually in the end clears completely, and then a disfiguring coloboma is exposed. The fear lest the cornea might, owing to the unusual severity of the case, not clear well, has hitherto led me to do the iridectomy downwards. All the cases of which I am speaking occurred some years ago, and before the introduction of eserine. Two suggestions have recently come into my mind. First, is it possible that the increase of tension, which constituted the alarming feature in these cases, was due to the over-use of atropine? and, secondly, would it not be well in any future case, instead of doing an iridectomy, to try eserine? It is true that in most of these cases there is some iritis, but the plastic stage may perhaps not improbably be passed when the tension commences. At any rate, if in future I should ever be forced to do an iridectomy, I should certainly do it upwards.

No. II.—*Simulation of Retinitis Pigmentosa in a Case of Acquired Syphilis.*

A very peculiar, rare, and important form of choroido-retinitis is sometimes met with as the result of syphilis, in which the

changes appear to be degenerative rather than inflammatory, and in which they are slowly but steadily progressive. In this form the final conditions resemble very closely those of retinitis pigmentosa. There are, however, always some minor features of difference by which the syphilitic simulation of the latter malady may be distinguished from the true disease. These cases are more common after inherited syphilis than after the acquired form; they are, however, now and then encountered after the latter. A very good example of it in connection with acquired disease is the subject of the following narrative. [The notes were written out in 1878.]

Mrs. Anderson, aged 49, is now so nearly blind that she can see to read only 20 Jæger, and not 200 in the distance. She has got much worse during the last year, but her malady has been very slowly aggressive, and it is twelve years since she saw to read or do needle-work easily. Failure of sight in the evening, and a musca before her left eye were her earliest symptoms. The date of the syphilis, to which we attribute her disease, was about two years before her first symptoms. The eyes were not painful, and there was no sudden onset of disease. In the early stages there was much watering of the eyes. She used also at this time to see occasionally "a large globe of light like a half-moon" pass before her eyes, and often a body like a fly without wings. She never had any material pain in the eyes. Although, as I have said, the disease has slowly progressed, it has not been at a uniform rate, but rather by jerks. She thinks that she has sometimes been several years without getting much worse, and then in the course of a few months has experienced decided deterioration. Especially she associates increased failure of sight with an attack of something like rheumatic fever eighteen months ago. Up to that date she had been able, in good daylight, to see to do needle-work, although for long before quite incapable of seeing to thread her needle. The history as regards syphilis is, that fourteen or fifteen years ago she had sores, which were followed by a rash and sore throat. She was quite unaware what her ailment was, and did not consult any surgeon. Two years later she found that her sight had much failed, that the eyes watered, and that she saw

the "globes of light and flies," and under these circumstances she consulted a specialist. It did not appear that her disease had ever been diagnosed, and probably she had not taken specifics, or at any rate not regularly. Once at King's College Hospital, where she applied for a sore tongue, she was asked whether she had not had something else the matter, but she did not understand the question. As additional evidence of her syphilis, I may state that she has several considerable scars on the sides of her tongue, on its dorsum, and at the angles of the mouth. These are all characteristic, and she states that her tongue has repeatedly at different times been very sore. At present it is quite sound, and I may note that there is no general atrophy of papillæ, and no bald patches or leucomata. The condition is that of definite local scars from definite ulcers. Had she been a man and smoked, probably her tongue would have been far worse. As it is, it bears conclusive evidence to the fact that she is syphilitic, and it is of much interest to note that like her eyes, her tongue has experienced repeated relapses of disease, often well for a few months or a year or two, and then again ulcerated.

Such, then, are the facts as regards Mrs. Anderson's ailments, and to them I may add the negative ones that she has never had any indications of cerebral syphilis, and that she has on the whole enjoyed good health. At present she looks well and younger than her real age. She had borne three children before her syphilis, and has had none since. Let me next describe the condition of her eyes. In both eyes the retina is extensively disorganized, with some involvement of the choroid, abundant pigmentation of retina and waxy discs. The state of the discs is exactly like that seen in retinitis pigmentosa; they look as if made of pink wax, are a little elevated, and slightly hazy; the central vessels, both veins and arteries, are very much diminished. All will remember how constant this diminution of the vessels is in the true retinitis pigmentosa. Yet no one of experience would mistake the retinal changes generally for those of the latter malady. Although there are many minute dots and lines of pigment, and many of them more or less like bone corpuscles; yet, in addition to these, there are also many large black masses, such as

we never see in the latter, and, further, in many parts there is proof of choroidal disorganization. The changes in the choroid are far less than in choroiditis disseminata, but they are present. Although the periphery of the fundus is much affected, yet the zonular arrangement of the morbid changes is far less definite than is usual in retinitis pigmentosa. There are a few faint striæ of opacity in the posterior part of the lens. The conditions, although not accurately symmetrical, are very considerable in both eyes. The eyes did not, however, fail together, and for long one was much better than the other.

It will be seen, then, that it is probable that this patient had syphilis and was never treated, that she suffered from syphilitic retinitis within the second year, and that since then slow changes have been in progress, stationary for a time and then again relapsing, which have eventually disorganized the structures concerned. It becomes of importance to ask whether we have other facts in the history of syphilis which correspond with this. I have already said that in the eye itself, and especially in connection with inherited syphilis, we have unfortunately many such. It is by no means uncommon for those who have suffered from keratitis and choroiditis in early life to become almost blind in later years, with slow pigmentary changes in the retina, followed eventually by other derangements in the nutrition of the eyeball. Secondary cataracts sometimes occur, and now and then an attack of glaucoma necessitates the excision of an organ which has for long been useless. These results are, I admit and repeat, less frequent in the acquired form of disease. But the long persistence of morbid changes, not perhaps exactly syphilitic, but still resulting from syphilis, in the first instance, is met with occasionally in other parts. I had not long ago under care a cachectic man, with ulcers in his tongue of many years' duration, and undoubtedly specific. He had made them worse by smoking. It was not, however, his tongue, but his legs, which chiefly interested me. Both his legs were covered with large patches of a very superficial eruption of dusky colour, which left thin scars. It was in reality a serpiginous syphilitic ulceration, but the ulceration process was exceedingly

slight. Now it was twenty years since that man had syphilis, and his legs during the last twelve years had never been well They had given him but little trouble, and he had had but little treatment, but he tells me that he was temporarily cured under my own care some ten years ago at the Metropolitan Free Hospital. Now substitute legs for choroids, and we have in these two cases almost exact counter-parts of each other. Certain forms of palmar psoriasis, which follow syphilis, and which persist for years offer also very close analogues to our case, in that a local disease of slight severity persists for many years, whilst the patient enjoys good health, and is free from other evidences of active syphilis. The mucous membrane of the tongue, again, is very often the seat of slowly progressive changes, which have their starting-point in syphilis, but which are finally of a degenerative type rather than specific in any active sense. Hence result the conditions of baldness and white patches with thickening, to which the term ichthyosis has been somewhat thoughtlessly applied. Making allowance for difference of the tissue involved, the similarity is probably very close between certain cases of chronic disease of the tongue, psoriasis palmaris and progressive choroido-retinitis. We may suitably remember that it is possible that disease of a similar type (that is, equally local, quiet, degenerative and slowly progressive) may attack any part of the nervous system. In the spinal cord it might produce any one of the various forms of paraplegia, and might derange any one of the functions of the cord leaving the others free. It might attack the ganglia of the vaso-motor system, or any one or any pair of them, and produce symptoms of a very peculiar and not easily comprehensible kind. I believe that I have succeeded in making it probable that the little ophthalmic ganglion is not infrequently so attacked and disorganized, and what is true of it is in all probability true of the others. It is clear that we have here a type of syphilitic lesion very different from the common gumma, and also from the results of arterial disease. Without asserting that it does not begin in inflammation (for in all probability it does), or that it is not attended by slight relapses of inflammatory action, I still hold that the term "progressive degenerative changes" may for a time at least

be found very useful to distinguish this group of the results of syphilis from others of a more conspicuously active type. As to the histology of the local changes, we as yet know but little, nor is it very probable that an opportunity will be afforded for examining the tissues in an early stage of the disease. Of this, however, we may feel tolerably sure that there is nothing of the nature of definite gumma at any period, and that iodide of potassium seldom produces any marked benefit. I make this assertion as to the non-results from specific treatment rather from what I have observed in congenital syphilis than in the acquired form, and I would be far from wishing to imply that specifics ought not to be used. A long-continued course of mercury would indeed be well worth trying in all cases, but it is as yet a matter of doubt as to whether by its means an arrest of the downward progress can always be obtained.

I am not able to bring forward many cases so definite and complete as that of Mrs. Anderson, and shall probably have to refer to hers frequently in the future. Before concluding, I may be permitted to draw especial attention to the fact of close similarity to retinitis pigmentosa, as suggesting that although a consequence of syphilis, the local changes have, after all, but little of a specific character about them. Of the causes of true retinitis pigmentosa we know nothing, but it is certain that it has nothing to do with syphilis.

No. III.—*Senile Diabetes with extensive Disease in the Choroid and Retina in both Eyes.*

Mrs. P——, an exceedingly stout Jewish lady, aged 70, but looking much younger, consulted me on March 24, 1886, on account of her loss of sight. She told me that she was the subject of diabetes, for which she had been under the care of Dr. A. Morrison, of Stoke Newington, for five or six years. She had also seen Dr. Pavy and Sir William Jenner. She was not aware that there was any gout in the family, but there was much "rheumatic gout." I have attended several of her relatives, and should think it exceedingly probable that there is true gout. A sister, like herself, is very stout. Mrs. P—— said that she was losing strength, although getting stouter, and she

was very nervous. She complained of much general tenderness, saying that her skin was sore all over, and that a touch would bring out a bruise. She complained also of a bad appetite, but her sister said that she ate largely. Her tongue was exceedingly furred in all parts, thus confirming the belief that a valuable diabetic symptom is "a dirty tongue with a good appetite." On testing her vision, I found that she could only see letters of No. XX at one foot. She thought that she had not seen to read for nearly two years. The ophthalmoscope showed almost exactly similar conditions in the two eyes. There were delicate peripheral striæ in the lens, and large map-like areas of white near the region of the yellow spot. In some instances the vessels of the retina were seen crossing these patches, and not in the least obscured by them; and at the margins of some there was a delicate network of choroidal tissue remaining. I believe that the deposit was in the choroid, and not in the retina. It was not arranged in streaks or lines as in the retinitis of albuminuria. In some places there were groups of white dots almost like insects' eggs. Here and there in the retina were a few very small hæmorrhages; they were all round, not flame-shaped. I do not know any ophthalmoscopic plate which represents these conditions well. The disc was not affected.

Many cases of retinitis in diabetes have been recorded, and a discussion on the subject in which Mr. Nettleship, Dr. Mackenzie, and others took part, occurred at the Ophthalmological Society in 1881. Mr. Nettleship has published a portrait. I have myself seen several cases. The one which I now record seems of special interest on account of a certain amount of evidence that the deposit was in the choroid rather than the retina. I obtained a portrait of the fundus, which I shall be glad to show to any one interested. The patient is, I believe, still living.

No. IV.—*Choroiditis with extensive atrophy and changes like those of Retinitis Pigmentosa. No special cause assignable.*

Mr. H——'s case is one of much interest as an example of diffuse choroiditis ending in extensive atrophy and changes

like that of retinitis pigmentosa. There was no family history either of myopia or of tendency to blindness. Nor was there the slightest reason to suspect syphilis either inherited or acquired. Nor was he the offspring of a consanguineous marriage. Mr. H—— was a farmer, from near Salisbury, and was sent to me by my friend, Dr. Bevan Raike. He was of a dark complexion, and apparently in excellent health. He believed that the failure of his sight had been gradually in progress from boyhood, and he had noticed that he did not see well in the evening, but this latter symptom had not been well marked. He had a considerable degree of myopia, and he thought that he might possibly in former years have tried his eyes a little in reading music. Otherwise there had been no over-use. He said he was constantly employed in out-of-door employments. The sight in his left eye was considerably defective, and he could only just spell out No. 12. With his right eye he read No. 1, and with his own myopic glasses $\frac{20}{70}$. With —7 D. he reached $\frac{20}{20}$. On using the ophthalmoscope I found the choroids very extensively atrophied, and large irregular patches which were chiefly located near the fundus of the eye. The difference between the two eyes was explained by the fact that the yellow spot was involved in the left, and had escaped in the right. The optic discs were in a slight degree waxy-looking, and there was also some slight appearance of opacity in the posterior pole of each lens. In addition to the extensive evidences of choroiditis, there were in the periphery of each eye the characteristic appearances of retinitis pigmentosa. These consisted in the formation of delicate lines and stars of pigment which were placed in front of the retinal vessels. Sometimes they ran parallel with the vessels, and at others crossed them. The pigment accumulations in connection with the choroidal atrophy were not large. In this case I could assign no cause for the choroiditis. It appeared to be aggressive, but with extreme slowness. It was very like what we often see from inherited syphilis, but I could not make out any suspicious facts in this direction.

DISEASES OF THE EAR.

No. I.—*On Gouty Seborrhœa of the Ear.*

A FORM of inflammation of the external ear which is in association with gout is characterized by repeated recurrences after long intervals of perfect recovery. Its recurrences are usually in association with other indications of gout existing at the time. It is in its nature what is called a seborrhœa-eczema, that is, it begins with increase of secretion from the ceruminous glands, which may easily be aggravated into general eczematous swelling of the whole ear. In many cases, perhaps in most, however, there is no evidence of eczematous complication. An itching, pricking sensation deep in the meatus is the first symptom of an attack. It not unfrequently begins rather suddenly, and it may begin in the night. The itching may be almost intolerable, and usually on introducing the tip of the little finger a sticky secretion is discovered. This secretion is much thicker and more waxy than that of a pure eczema, and it often also remains for long strictly limited to the deeper parts of the meatus. If the impulse to rub the meatus with the finger be yielded to, it is immediately followed by increase of heat and swelling, and there may be some approach to a general ear-ache, otherwise there is no material pain. The degree of deafness is for the most part proportionate to the completeness of the occlusion of the meatus. It is very little at first, but may be considerable before the attack ends. When the attack passes off the hearing is restored almost perfectly. During the attack there is an almost constant feeling of stuffing and fulness in the ear, and the patient feels inclined to pull the meatus open. There is often more or less of a low singing or humming. In many persons this singing, with the dulness of hearing, is

increased after food, but more especially and in a very remarkable manner by drinking strong coffee. During the time that the attack is on, the whole ear is remarkably susceptible, and the patient may be quite unable to bear the slightest breath of cold air on it, without an immediate increase of the symptoms, and a threatening of aching. Between the attacks, although the ear may be susceptible to wind, it may be perfectly able to bear all ordinary exposure. If the condition have been aggravated by rubbing or otherwise, the whole external ear may become red and thickened, and will tingle and burn, the condition being as much like recurring erysipelas as true eczema. It is to be especially noted that the condition hardly ever affects both ears simultaneously, and that it usually recurs in the one first affected. In this it corresponds with what happens with the recurring iritis which we observe in association with rheumatic gout. After one ear has suffered for a week or two the other may be affected, but seldom, I think, so severely as the first. The duration of the attacks is variable, but they usually last several weeks, and tend to pass away spontaneously. The intervals between them may be very short, or from six months to a year. Although more common in winter and cold weather, they may occur also in summer.

It may be asked whether the attacks described are not as much catarrhal as gouty, or whether they should not be described as catarrho-rheumatic rather than gouty. In reply to this I would say that no doubt they are mixed as regards their causation. That they occur chiefly in those who are distinctly suffering from gout, and who show at the time other indications of it, I cannot doubt. Most of the cases that I have seen have been in patients past middle age; I do not know whether the affection occurs in childhood or early adult life, but I have never at such ages seen a good example of it.

As regards the risk of permanent damage to hearing, it is clear that if the disease be of gouty origin it may easily be attended by implication of the auditory bones and middle ear generally. In many cases, however, it appears to recur over and over again without any material complication of the ·nd referred to. It may lead to thickening or even to

perforation of the membrana tympani, and if of frequent recurrence or long persistence it will certainly thicken the external ear and render it rigid. In some cases it is met with in association with a seborrhœa-eczema of other parts, more especially of the axillæ and genitals.

It is to be distinctly understood that although this affection has alliance with eczema and may pass into it, yet that it is very different from what we ordinarily mean by eczema of the external ear. It begins definitely, deep in the meatus, by an increase in the secretion of the ceruminous glands, and the implication of the external ear is always secondary. Its clinical course is also towards cure, and that often independently of treatment, whereas common eczema is usually persistent unless carefully cured by treatment. Common eczema may affect the external ear for years together, yet never pass deeply into the meatus, and never produce anything of the nature of seborrhœa. It is to be fully admitted that seborrhœa and eczema constantly complicate each other, or rather that the former is very often introductory to a dermatitis which receives the latter name. This occurs especially in parts where sebaceous glands are abundant and active, as, for instance, on the face, in the armpits, on the scrotum and adjacent parts of the thigh in the male, and on the labia, &c., in the female. Whether a seborrhœa shall or shall not be aggravated into an eczema depends very much on the patient's self-control and on the measures of treatment adopted. If the patient scratches or rubs, eczema will certainly follow, and so also if irritating remedies are used. These facts are well known to dermatologists. To the regions already recognized as specially prone to seborrhœa I now add the external auditory canal, with the assertion that a blood tendency to gout is a common cause of the affection.

An excellent illustration of recurrent gouty seborrhœa of the ears occurred in the person of Mrs. L——. This lady, the wife of a distinguished author, inherited gout from her grandmother and mother, and believed that it had occurred in many members of her mother's family. She was 62 years of age when she consulted me, and although she had borne a numerous family, looked much younger than her

years. It appeared probable that she had suffered from birth from a slight form of xeroderma. She had been troubled with eczema behind her knees and on the genitals, and on these parts the affection would come and go, causing much soreness when actively present. On one finger there was a distinct bony outgrowth (*nodus digiti*). She had never herself suffered very conclusively from articular affections either rheumatic or gouty, but her dietetic experiences were definite. All kinds of wines, she said, disagreed with her excepting champagne, and their disagreement was expressed by thick urine, and often by an attack of eczema. Beer, which she liked and which in early life she had been able to digest, now always caused thick urine and brought out her eczema. Dry champagne she could take with impunity. She was liable to a peculiarly bitter taste in the mouth, and of late had suffered much from lowness of spirits. Such were the general conditions of health under which Mrs. L—— had become liable to recurring attacks of deafness. These attacks were always introduced by great itching at the bottom of the ear, which was followed by a sticky discharge, swelling of the meatus, sense of stuffing and fulness. She said that she had never known the attacks begin in both ears together, but on several occasions both had been affected, and she had been for a time very deaf. She had had several attacks, and between them was accustomed to get almost perfectly well. I had attended several of Mrs. L——'s relatives and children for eczema. She thought that the eczema (or seborrhœa) of the genitals seldom occurred simultaneously with the affection of the ears.

In the case of Mrs. D——, I had another good example of the pruriginous seborrhœa of the ears in connection with history of gout. I had previously treated a sister of hers for troublesome eczema in connection with gout. I had also treated her grandfather for gout, and she herself was liable to flying pains in her joints, and had both her knees somewhat stiffened. Mrs. D—— was aged 59 when she consulted me, and had the appearance of good health. The description of her attacks was quite characteristic. She had had several of them, the first, three or four years ago. They always began with itching deep in the external ear, which was soon

followed by a sticky clear discharge. If she yielded to the desire to rub, the itching was converted into an intense burning which would involve the whole concha. The whole of the external ear would become red and slightly swollen, and the attacks usually ended by dry eczematous peeling. The attack from which she was suffering when she came to me was of nearly three months' duration, with variations. The attacks were always attended by much humming in the ears, sense of stuffing, and temporary deafness. This lady mentioned a symptom which I had noted in two or three other cases, namely, that frequently with the inflammation of the ears her nostrils would also become sore. The soreness chiefly affected the external orifice, and was attended by a tendency to crack.

No. II.—*A Case illustrating a form of Deafness which occurs after Typhoid Fever.*

The case of Mrs. B—— may perhaps be of interest and value as illustrating one of the forms of deafness which follow typhoid fever. She was under my care for other ailments, and I found her so deaf that it was necessary to shout loudly in conversation. On asking as to the cause of her deafness, she told me that it had followed typhoid fever. I became interested in obtaining the precise facts. The fever occurred, she said, twenty years ago, and was a most severe attack. She was not in the least expected to recover, and had been, she was told, for one month unconscious. She was six months in her bedroom, and had a large bed-sore. After her convalescence an abscess formed over her hip, which continued to discharge for a year or so. It had not left any stiffness of the joint. Mrs. B—— was married at the time of her illness. After her protracted convalescence she regained pretty good health, and had since borne several children. Before the fever her hearing was perfect, but when she recovered from it she was found to be very deaf and she has remained so ever since, with some variations and with perhaps on the whole slight improvement. No other special sense suffered, nor was there any form of paralysis. She had had no ear-ache nor

any discharge from the ears. As regards the character of the deafness, it may be stated to be unattended by any other subjective symptoms. She simply does not hear. By paying great attention she can hear a watch at a foot distance, but her apparent difficulty in conversation was far greater than this fact would seem to imply. It was doubtful if she could hear the watch pressed on her forehead. She had already been carefully examined by an excellent specialist (Dr. Hensman), and had been told that there was nothing amiss with the external ear, that it was nerve deafness, and that treatment would be of no avail. She had never been giddy and never had singing in her ears, nor ever experienced any sensation of stuffing. She could hear best when all was quiet, and could not hear at all if several people were speaking at once. Her deafness, she said, varied with her state of health. It always got definitely better when she was staying at the seaside and was worse whenever she fell out of tone.

It will be seen that we have here a form of defective hearing which has been, with variations, permanent but not in the slightest degree aggressive, and which is remarkable on account of the entire absence of all concomitant symptoms. It might perhaps be of some interest if those who have opportunities would examine as to the subsequent state of health, especially as regards the nervous system of those who have passed through long periods of unconsciousness in fever. This lady, although she had enjoyed pretty good health, considered that she had never been really strong since her illness. Amongst the symptoms for which she came under my care was the liability to very severe headaches, the pain beginning at the back of her neck and spreading to her head and causing her to "retch just like sea-sickness." Her arms were liable to become numb, sometimes on one side and sometimes on the other, and occasionally on both. After the attacks of numbness her limbs would ache. The numbness of her hands was often most marked just after breakfast, when quite independently of cold she often found herself unable to write. Her headaches, from which she had suffered for several years, would occur once in a fortnight, sometimes once in a week. The ailment which had brought her to me

was a non-malignant tumour in the breast. She was 52 years of age. It seems worth a thought whether during the long period of unconsciousness which she described, any permanent damage was done to the brain, of which the peculiar attacks of numbness were the result. If, however, the latter were in any such connection we must remember that, unlike the deafness, they had come on after a long interval since the fever.

SYPHILIS.

No. I.—*Deformation of the Skull in Congenital Syphilis.*

When the peculiar forms of the skull in congenital syphilis were first recognized, I was inclined to attribute them to a transitory tendency to hydrocephalus. But the subsequent dissections of M. Parrot, and his demonstrations of periosititis obliged me largely to abandon this explanation. It is possible, however, that in accepting periositis as the cause of all the peculiarities of the skull met with in these cases, we go too far. I am inclined to fall back on the first hypothesis, and to again believe that there is during the early stage of infantile syphilis some tendency to hydrocephalic effusion. Thus, as an instance, I have recently seen a little girl of six, who has a large projecting forehead, and wide head, and in whom the anterior fontanelle is not yet closed. The form of the head is more like that of hydrocephalus than that typical of congenital syphilis. In saying this I mean that there are no definite bosses. It seems probable that the hydrocephalic fluid has been wholly absorbed, for the unclosed fontanelle at the present time is deeply depressed. There is a history that in infancy the child had severe convulsions, and became for a time apparently blind; and there is now, in addition to extensive evidence of choroiditis, also proof of former neuritis, with extensive diminution of the central vessels. The child is believed to suffer from headache, but has no other definite symptoms, and looks well.

No. II.—*Facts as to the treatment of Syphilitic Disease of the Testicle. Recovery in most unpromising cases without Excision.*

The case of Mr. K—— is of considerable importance in reference to the saving of a testicle under very unpromising

conditions. When he came to me he had already had the right testicle removed, and the left was much diminished in size, and was exposed on all sides in an unhealthy ulcer close to the root of the penis. He had been advised to have this also removed, as it much disabled him, and the results of treatment had been disappointing. The removal of the right testis had been performed after a year's disease, two years ago. Doubts had been expressed at the time as to whether the disease was tubercular or syphilitic; it was taken away because it would not heal, and because it prevented his taking exercise. Mr. K—— was a strong, healthy looking man aged 32; but there was phthisis in his family, and his chest had at one time been suspected. Twelve years before I saw him, he being then twenty years of age, he went through a severe attack of syphilis. He was treated for three months by an eminent surgeon, by means of the mercurial vapour baths. At one stage, on account of high temperatures, the late Dr. Wilson Fox had been consulted. I could not feel sure whether the disease of his testicles was tubercular or syphilitic. On each side abscesses in the gland itself had been the most prominent symptom, and from the way in which the remaining testis had been drawn up towards the groin, it seemed probable that there had been suppuration along the vas deferens. My first impulse was to tell him that he had better fall in with the advice already given him, and have the damaged and apparently useless organ removed.

Supposing the disease to be tubercular there was, of course, much risk of infection. It is to be noted that he had no other indications of syphilis, and had had none with one exception since Mr. Lee's cure of him twelve years ago. The exception referred to was an abscess in one popliteal space, which occurred about the time that his right testis was first affected. The large scar which this abscess had left was so like that of a suppurated gumma that I at once determined to try the effect of syphilitic treatment. It is to be remembered that this had not been omitted before he came to me, but had been thought to be unsuccessful. I prescribed for him full doses of the three iodides, and sent him to stay at the sea-side. He returned to me in two months, with the

parts almost healed, and saying that he had gained two stone in weight. Six weeks later I saw him again, and gave him permission to return to India. The parts were quite soundly healed, and he was in excellent health. The testis which was saved was not bigger than half a walnut, and was held up by a puckered scar close beneath the root of the penis. He was in high spirits at his recovery, and was anxious for permission to marry.

From the result of treatment in this case there could be but little doubt that the disease had been from first to last syphilitic, and it is of interest to note the long period of good health which had intervened between the original disease and the tertiary symptoms. The case recalls to my mind one in which some years ago I assented to the removal of a testicle which was apparently disorganized by abscesses. The patient was a healthy man, of about fifty years of age, with a very doubtful history of syphilis in early life, and with a perfectly healthy family. He had had not the slightest reminder of his syphilis since; in fact, he had never had any secondary symptoms whatever. I thought that his suppurative orchitis had been produced by the use of catheters for stricture. After its removal it was found to be disorganized by abscesses, and surrounded by a large amount of fibroid thickening. No sooner was he well after the removal of this testis than its fellow inflamed, and an abscess formed in it. At length, becoming discouraged from the want of success of my treatment, he consulted another surgeon. This gentleman told him that he felt confident that it was syphilitic and seemingly proved his diagnosis by getting him well under specific treatment.

No. III.—*Hereditary Syphilis without definite peculiarities in teeth or physiognomy.*

A lady, aged 36, who had a son of 20, was under my care for tertiary syphilitic ulceration of her nose. She one morning brought her youngest child with her. The latter was a pale, fragile-looking girl of 13, of pretty features, bright eyes, and exhibiting nothing whatever in her physiog-

nomy to suggest a taint of syphilis. Nor did her teeth show anything characteristic, though the upper central incisors were decidedly smaller than they ought to have been. On examining her forehead and skull I could still find nothing of bygone periostitis. She was brought to me for "rheumatism" of one knee; but on uncovering her legs I found both tibiæ considerably thickened by chronic nodes. There was a scar on one where an abscess had been opened. She said that her elbows were affected also, and I found both ulnæ affected with nodes in their upper and middle thirds. Her complaint was that she "could not sleep for aching of the legs." I could find nothing material amiss either with the knee joints or elbows, and although in each instance she considered the pain was in the joint, it was clear, I think, that it began in the bones. It did not appear that she had had much, if any, treatment for syphilis: she was taking hypophosphites and remedies for supposed rheumatism. On inquiring as to infantile symptoms, her mother used the expression, "She suffered from piles very much when a baby," meaning, no doubt, condylomata, but she did not recollect any other symptoms. (It curiously happens that I have often seen condylomata present in congenital syphilis in cases in which the child almost wholly escaped as regards other symptoms.)

Another symptom of minor importance, but still well worth thought, was present in this case. The child's legs were covered with brown stains (fire-stain melasma), and on inquiry I was told that she was an "extremely chilly subject," and was always cowering over the fire, "would get into it if she could." It may possibly be the fact that the chronic periostitis was the means of inducing a more or less constant arterial spasm, and thus of keeping her chilly.

No. IV.—*Very Severe Convulsions in a Syphilitic (?) Infant. Delayed Dentition. Absence of other symptoms.*

I had an opportunity of examining a little boy, who in infancy had suffered most severely from convulsions. His mother stated that he had had, in the first instance, a series of

forty-five fits, and in the second twenty-two; and had several times been thought to be dead. The liability ceased at the age of nine months, and it did not appear to have been connected with the eruption of his teeth, for he did not get his first tooth till he was thirteen months old, and after that the whole of them came through easily. There appeared reason to believe that he was the subject of inherited syphilis, for his mother had suffered from palmar psoriasis and a sore throat during her pregnancy, and Dr. Trent, of Tooting, under whose care she was, had treated her for syphilis. The child, it must be noted, had never had any definite symptoms of specific disease.

With the above antecedents, I was interested in noting the condition of the boy at the age of nineteen months, when he was brought to me. He had then the appearance of excellent health, and showed no peculiarity of physiognomy. His teeth were well-formed, white, and in good condition. His anterior fontanelle was just closed. He appeared to be intelligent and easily amused. I should not in the least have suspected him as being the subject of inherited syphilis. Another child was, however, brought with him, aged two months, who was unquestionably suffering from specific symptoms. With the facts that his mother during the time that she was pregnant with him suffered from constitutional syphilis, and that a child born after him presented well-characterized disease, it is not possible to believe that he escaped. It becomes, therefore, very probable that his convulsions were due to the taint which he inherited.

No. V.—*Choroido-retinitis and other changes in a Child the subject of Inherited Syphilis.*

I wish to describe the precise conditions seen in the eyes of a little girl of six, whose antecedents were well known. Her father was a surgeon who had suffered from a chancre on his finger, and by accident communicated the disease to his wife during her pregnancy. The child, which thus acquired the disease *in utero*, suffered severely in infancy, and amongst other symptoms had repeated attacks of convulsions. After

one of these attacks of convulsions she appeared for a time to be blind. At present her state of sight is just sufficient to permit of her having learnt her letters in very large type; it is not possible to test her accurately. On examining her eyes after atropine, I found the conditions peculiar and not symmetrical. In both there were very extensive, but minute and inconspicuous changes in the choroid. There were numerous minute white spots and patches scattered over all parts of the fundus. Very few of these exhibited any pigmentation. Near to the periphery in both, but especially in the left, there were minute specks of pigment in the retina, like those in retinitis pigmentosa. In the left eye a very dense floating body, thick enough to look quite black, floated in the vitreous, being evidently attached. With this exception the vitreous was quite clear. In both eyes the retinal vessels were very small, but in the left they were extremely so. In the left eye the optic disc was surrounded by a rim of very black pigment, and it was itself very decidedly pale, but by no means white. In the right eye there was no pigment around the disc, but its margins were ill-defined.

No. VI.—*Chancre of Lip in a married Man. Pregnancy of his Wife. An infected Fœtus and contamination of the Mother.*

One Sunday evening in February, some years ago, a medical friend brought to me a patient, whose case was, he said, a peculiarly distressing one. The patient was a gentleman of about 30, who had been one week married, and was in London on his honeymoon. He had on that morning consulted Dr. R—— respecting a sore on his lip, which Dr. R—— believed to be a chancre. I was obliged to confirm the diagnosis, for there was not the slightest doubt about it. As usual, in my experience, in cases of lip-chancres, there was no evidence whatever as to how the sore had been contracted. We prescribed the usual measures and gave the proper cautions as regards the risk of infecting his wife. I saw no more of the patient, until the first week of November of the same year when I was asked to see his wife and an infant which

had been born to them. The precautions on which we had insisted had been neglected, and the result had been that his wife had been confined of an eight months' child just seven weeks before coming to me. Thus conception must have taken place within a month or two of marriage, and during the early secondary period in the husband. As the husband had never had any sore on the genitals and his wife had never contracted any primary chancre, either on lips, genitals, or elsewhere, we may consider that the case supports the belief, firstly, that a father may infect his offspring, and, secondly, that the fœtus may infect its mother.

Mrs. S—— did not herself consider that she had been ill, but she had been made to take mercury, as a matter of precaution, almost from the middle of her pregnancy. She further admitted that she had several times had some blotchy spots on her body and arms. When she came to me seven months after her confinement she had a considerable number of dusky erythematous blotches on the fronts of the forearms, and superficial symmetrical ulcers on the tonsils. Both the sore throat and the eruptions were of recent development; she had had no sore throat until the last few days. There could be not the slightest doubt as to the nature of her symptoms. Her infant, seven weeks old, had been considered to be, for an eight-months' child, in a very thriving condition until the last few days. It was now, however, beginning to snuffle, had excoriations at its anus, and dusky erythema of its scrotum. There could be no doubt about these symptoms.

It is of interest to note in connection with the above facts that the mother did not suffer any outbreak of secondary symptoms until after her delivery. I have often observed this in other cases. It may have been that the mercury which had been given during the pregnancy, and omitted at the time of the confinement, had sufficed to keep the disease in check, but had not cured it. I believe that even during the pregnancy it had not been taken with much regularity, and some threatenings of an eruption had been several times observed.

DISEASES OF THE SKIN.

No I.—*Case of Ringworm of the Beard, showing the necessity for great care in the Diagnosis by the Microscope.*

A SHOPKEEPER from B—— came to me one morning, with the statement that he had got a ringworm on his chin which he had caught, as he believed, at his barber's. He had been to a barber whom he was not accustomed to frequent, and who he thought was not sufficiently cleanly. On going to his own barber some three days later, it was remarked to him, "why you must have had your chin scalded;" there being two red patches on it. From these there developed very quickly two large definite rings. It was six weeks between the supposed date of his infection, and his visit to me. In the meantime patches had occurred all over his chin and front of neck, and they had lost the character of rings, and consisted merely of raised areas which were red, and from which the epidermis was peeling. He had been using various remedies, and had perhaps modified it a good deal by them. Some of the patches did show in an indistinct manner the tendency to become crescentic. On inquiry as to whether he had any special reason to suppose he had been exposed to the infection of ringworm, he said, "No." He kept a boot-shop and had nothing to do with cattle or horses. He was not aware that there was any ringworm in his family, but said that one of his children, an infant, was suffering badly from eczema. He had been sent to me by a friend of his, a butcher, whom I had cured four years ago, of very bad ringworm of the chin, supposed to have been caught at the same shop.

What I have next to narrate concerns the difficulty and uncertainty which attends the microscopic examination. I pulled a number of hairs out of the patches and scraped off epidermic scales, of which there were plenty. Having treated these with glycerine, they were placed under the microscope, and after ten minutes careful inspection I could not find a single trace of fungus. I told my patient that I thought his case was one of eczema and not ringworm, but he persisted. "The rings were at first as if you had drawn them with a pencil, simply a ring and nothing in the middle. It must have been ringworm." So I asked which was the part first affected, and carefully pulled out some hairs from it. On examining these (about half-a-dozen hairs all looking perfectly normal to the naked eye), I found in two abundant evidence of fungus. One of these was crammed full with spores, so that I could distinguish nothing else in that part which was affected. Its end was somewhat brush-like, and a few loose spores adhered to its broken fibres. The other hair presented very different conditions. It was fairly transparent and showed no spores whatever, but branching mycelium in filaments of very great length and in tolerable abundance. In neither case was the root of the hair involved, and in both the cortex with the smallest possible exceptions appeared to be sound. In the evening I made a more prolonged examination of the hairs which I had extracted from three different parts of the skin, after long soaking, some in liquor potassæ, some in glycerine. With the exception of the two hairs mentioned, I did not succeed in finding either in epidermis or hairs any trace of fungus. Such a case well illustrates how easily the correct diagnosis may be missed in such cases, and how careful we must be in accepting a negative conclusion, based on failure to discover the fungus by aid of the microscope. The case also shows how rapidly ringworm may spread on the adult skin, the man had not only his chin and neck covered, but patches were appearing on his forearms. The fungus in all respects resembled that of common ringworm, and had the case been allowed to develop, no doubt we should soon have had inflammation of the hair follicles, and a typical example of "parasitic sycosis."

No. II.—*On the Infective Character of Boils as a Cause of their Multiplicity.*

I believe that in many instances boils are infective to their possessor, and that what is called "a crop of boils" are really the progeny, in successive generations, of the first. This doctrine is very important as regards treatment, since it strongly emphasizes the importance of curing the first as quickly as possible, and of following up a similar abortive treatment for each one in succession. I have elsewhere explained the *rationale* of this plan of treatment in reference to common pustular acne.

A gentleman, Mr. S——, aged 56, gave me the history that he had suffered severely from boils for a whole year. He had had, he said, more than a hundred, some large and some small. At one time he had at once so many that he kept his bed for a week. All sorts of treatment had been tried—arsenic, tonics, sulphide of calcium, &c.—and nothing had done any specific good. This severe eruption, so long continued, had been confined to the trunk, not a single boil had appeared on his limbs. It had begun on the left side of his chest, close to where he had just had a blister applied for a slight attack of pleurisy. All the earlier boils were near to the blister, and from that centre they spread over the abdomen, chest, and back. Mr. S—— was at the time living in a healthy house at a fashionable, but not bracing, seaside town. His surgeon examined his urine repeatedly, and never detected anything abnormal; nor was there anything in the previous state of his health to in any way explain the attack. The recovery was finally attained under such a combination of local and internal remedies, that it was not possible to say what had been most efficient. Now, this patient had never in his life had a boil before, and after once the cure was complete he remained quite free from them. There had been much discussion as to whether the outbreak was the expression of gouty tendencies, or of any other diathetic proclivity. Is it not more reasonable to regard it simply as a sort of accident, which had little or nothing to do with any special state of the general health? The blister set up local inflammation, and of this a boil was

the result. The first boil infected the tissues near it, and produced others, and thus throughout the whole chain of events the successive phenomena stood in the relation of cause to those which next followed them.

No. III.—*Large ulcers on the leg of a girl, looking like Syphilis. History absent. Cure.*

I feel sure that it is desirable to draw attention to the great difficulties which often attend the diagnosis of syphilis. We are sometimes inclined to make this diagnosis with too great confidence, and to insist too strongly on the value of peculiar appearances. There is no disease which syphilis cannot simulate, and there is no condition, however suspicious in its appearances, which can justify an absolutely confident diagnosis when the history is absent. I relate the following case in illustration of my statement.

A case sent to me by my friend, Dr. C. D——, presented most unusual difficulties in reference to diagnosis of inherited taint. She was from the country, and a rosy-faced, well-grown child of nine. She had good teeth, and showed nothing peculiar in physiognomy or shape of skull. Both her parents came with her, and both appeared to be in excellent health. She was the eldest of four, and none had died. Her father gave me the clearest possible denial of all history. It is scarcely possible to imagine a case in which the negative evidence could be stronger; yet this child had a number of large ulcers on one leg, which had they been met with under other circumstances would have been pronounced without hesitation to be specific. They were deep, with unhealthy, dirty secretion, and edges sometimes everted, sometimes undermined. They were spreading at parts, and healing in others, and were so extensive that they threatened to surround the leg. On the upper part of the back of the thigh on the same side there was a large thick scar, as big as a child's [illegible] which had been left after the healing of an ulcer similar to those on the leg. This ulcer had been the first [illegible] had begun about eighteen months before I saw [illegible] about six months before those on the leg. I

as having commenced as a bad boil, and had been cured by the application of strong caustics. The other leg was quite healthy, and I could not anywhere find any proof of periostitis. I inquired as to the possibility of taint through vaccination, &c., but could get no help in that direction.

Dr. D—— had had the child long under treatment before I saw her; had tried change of air, liberal diet, and in addition to various local applications, the bi-chloride of mercury internally.

Although much temporary benefit had at times been obtained, nothing like a cure had resulted, and no remedy had appeared to exert any specific action. I was told that the child had once had an acute attack of inflammation of the eyes, but of this, neither in cornea, nor iris, did the slightest evidence remain. It was as difficult to call the ulcers strumous as syphilitic, for neither child nor parents showed anything in the least indicative of that state. No trial had as yet been made of systematic rest. The child had indeed been encouraged to be much in the fresh air. I advised that a two months' rest in bed should be resolutely carried out, and that the ulcers should be dressed with iodoform, and if that did not succeed, cauterized with the acid nitrate.

Six months later Mr. Dukes was kind enough to inform me that under absolute rest, &c., followed by elastic bandage, the leg had got quite well, and that it remained so.

I have more recently, in the person of a young lady who had been brought over from Normandy, seen an almost exactly similar case. There was no feature wanting which might suggest tertiary syphilis. Yet the evidence was in the [illegible] negative. The ulcers proved most [illegible] I believe that the conditions [illegible] bloeness of circulation and indi- [illegible] upon specific taint.

[illegible] Lichen Ruber of Hebra.

[illegible] York, has just given us a very [illegible] Lichen Ruber. It is accompanied,

as is usual with all that he writes, by the detailed citation of facts which have been very carefully investigated. Dr. Taylor gives us first an excellent coloured illustration of his patient's skin, next a full report of her case, and lastly numerous illustrations of microscopic sections of the parts involved. The clinical features of the disease are certainly brought out with a definiteness which I think no one had previously attained. According to his delineation we see in lichen ruber a disease of well-marked individuality, but not a true "lichen" at all, if we are to imply by that term any implication of hair follicles or glands. Its anatomical features consist in hypertrophy of all the layers of the epidermis, accompanied with some exudative inflammation in the papillary layer. The deeper structures and the glands escape entirely. It is an affection which begins without any obvious cause in persons of good health, and the course of which would suggest that it is a chronic, self-infecting form of inflammation. Those who have had it once are liable, after an interval of perfect recovery, to have it again. Its development is very slow, six months to a year or more, and after having reached its height it may disappear almost spontaneously. The appearances presented by the skin are a number of little, conical, waxy-looking, papules of light-brownish red colour, which soon become flat and shiny, and are almost without desquamation. The papules do not grow beyond a certain size, but fresh ones form near to them and by coalescence very large areas are covered. The ultimate condition is a slight thickening and induration of the skin, with exaggeration of its natural furrows, so that it looks and feels like thin leather. At all stages the disease is remarkable for the uniformity of its lesions, there being not the slightest tendency to polymorphism or deviation from type. It would appear to begin usually on the upper parts of the trunk, and to spread very slowly downwards over the body and limbs. It may affect the palms and soles, and may impair the nutrition of the nails, and of such hairs as are met with on the trunk. It is not known to affect the mucous membranes. It is not attended by much local irritation, but is usually accompanied, when extensively developed, by emaciation and loss of strength.

It usually spreads over the face, and on the scalp a condition of desquamation is produced. Dr. Taylor's patient was a healthy Swiss woman, aged 37, who had her first attack immediately on her arrival in New York. This lasted her a year and then disappeared under negative treatment without leaving a blemish. A year after her recovery she was again affected, but the eruption was not so extensive as on the first occasion, and passed away in a few months. Eighteen months later the third attack (that which Dr. Taylor describes) commenced. It began by groups of pimples on the neck, top of sternum, and about the chin. It was confined to the regions mentioned for at least two months, and during the next eight months spread gradually, though not in a continuous manner until it involved the whole of the trunk and limbs. This attack was in its tenth month at the time of Dr. Taylor's description of the case.

It is of interest to contrast this account with that given by Hebra, who was the first to describe lichen ruber. On the whole, it does not differ much from it. Hebra insisted upon the fact that the little papules themselves did not undergo any material change, nor any peripheral growth; that they did not itch and were attended by very slight evidences of inflammation. The extension of the disease was, he said, by the production of new papules and their coalescence into large, ill-defined areas. He noticed the affection of the palms and soles, and of the fingers and their nails, and also that the hair of the head, pubes, and axillæ, escaped; while that of the trunk in general might degenerate. He described the latter stage of the disease as being of greater severity than that encountered by Dr. Taylor; but this impression was modified, I believe, by his subsequent experience, when he found that all the cases ended favourably if arsenic were given. His account differs a little from Dr. Taylor's in his representing that the eruption occurs, in the first instance, on the limbs, and also in the statement that the chief morbid change discovered by the microscope was in the root sheaths of the hairs. Not having witnessed many cases of recovery, and regarding it, unless treated by arsenic, as a slowly but certainly fatal disease, Hebra says nothing as to its re-

currence after an interval. At the time that his first paper was written (more than twenty years ago) he had seen fourteen cases, of which several, perhaps most, had ended fatally. After accounting for three, he writes: "All the others perished before my eyes in spite of careful nursing and the administration of various remedies." His later experience was, however, that all treated by arsenic did well. Hebra could assign no cause whatever for the disease; but of his fourteen cases thirteen occurred in males. Some of the patients were youths between thirteen and twenty, but some were more than forty years old, and appeared to be in perfect health; no inheritance was traced in any. I do not find that he assigns any very definite duration to the malady.

At the time that Hebra wrote it was necessary to establish the diagnosis of the new disease only as regards others which were well known, and he constructed an elaborate table giving its differential diagnosis from lichen scrofulosorum, psoriasis, eczema, and pityriasis rubra. It is not now necessary, at any rate for specialists, to take these maladies into any consideration, for, in regard to lichen ruber, their differences are conspicuous and well known.

Another disease has, however, come into prominence since Hebra wrote, which presents greater difficulties. I refer to the disease which Wilson first described, and which we know in England as lichen planus. Much perplexity has occurred owing to a confusion of these two maladies. In England, lichen ruber, of the original Hebra type, and like the case which Taylor has now so well recorded, is probably very rare; and it may perhaps be the case that English authorities, who have written respecting it, have never really had an opportunity of examining a well-marked example. Lichen planus, on the other hand, is by no means so infrequent, and from it most of our descriptions have been written. Nor were our colleagues in Vienna wholly free from ambiguity on this point, for Kaposi described an acuminate as well as a plane lichen ruber. Dr. Taylor devotes the greater part of his paper, and I think successfully, to the endeavour to establish a diagnosis between the two. This diagnosis, let me say, had been quite as definitely laid down, some years before, by his

fellow citizen, Dr. A. R. Robinson. Dr. Taylor, however, places the points of diagnosis very conveniently in parallel tables. Lichen planus, which would appear in America to be more common than lichen ruber, he describes as an affection of the deeper layers of the skin, more decidedly inflammatory, producing hard, rough, dark-brown patches, which desquamate a good deal; produced symmetrically in discrete patches, and chiefly on the limbs, its papules increasing by peripheral growth and undergoing changes independently of one another, rarely affecting the palms and soles, never the face, and scarcely ever the nails. It may affect mucous membranes, as the mouth and glans penis, is often attended by severe itching, but does not produce any definite failure of health. It might seem that these features would have sufficed to supply a definite distinction between the two; but the maladies in question have one point in common, and in connection with this mistakes have come about. It is that in both the papules many take on a smooth and polished surface; this is universal and invariable in lichen ruber, and in lichen planus it is almost always found in some of the spots. In making our diagnosis of the latter we always seek, it may be on the wrists, or on the ankles, or on the abdomen, some spots which have become polished and shiny. Very often the majority of the patches are not polished at all, but rough and papillary, and it may be so scaly that it is difficult to distinguish them from psoriasis or dry eczema. No such difficulty is encountered in lichen ruber. Dr. Robinson (of New York) follows Hebra in his statement that lichen ruber is fatal, if not cured by arsenic, and he gives woodcuts representing microscopic sections of the skin. He gives, unfortunately, however, no definite statement as to his personal experience of the disease.

DISEASES AND INJURIES OF THE NERVOUS SYSTEM.

No. I.—*Delivery by Forceps. Rupture of the Roots of the Brachial Plexus in the Infant. Statement of the conditions two years later.*

Dr. Charles Knight, of Brixton, brought to me an infant of a year old, in whom it seemed probable that the brachial plexus had been torn through at the time of delivery. It was a forceps case, and it had been necessary to use much force. The clavicle was broken near its acromial end, and possibly the scapula also. The arm now affected had appeared to be paralysed from the first.

I saw the child when a year old, and again at the age of two years. In the interval galvanism had been employed.

At the latter date (Dec. 12, 1888) the arm was quite helpless, and the hand dusky-red and cold. The fingers were contracted into the palm. I was told that the child would occasionally move the thumb a little. I could not elicit any action in any of the muscles. The deltoid was wasted. Both shoulder and elbow were somewhat stiffened by muscular contraction, but there was no anchylosis. It was impossible to test sensation accurately in so young a child, but there could be no doubt that it was very defective in the whole limb. Galvanism had, in the first instance, been borne apparently without its producing any sensation, but latterly the child had cried when it was used.

I examined carefully for eye symptoms, but, excepting that the palpebral fissure was certainly narrower than on the other side, there were none. The pupil dilated in the shade. The ears were alike in temperature.

I have published elsewhere* several examples of laceration of the roots of the brachial plexus from violence, and cases have also been recorded by others. This, however, is the first instance, so far as I know, in which the accident has occurred to an infant during birth.

No. II.—*Symptoms of Arachnitis after a fall on the Head. Recovery under treatment by Mercury.*

I saw, with Dr. Taylor, in Gloucester Road, Kensington, a gentleman in whom somewhat peculiar head symptoms had developed after a fall. It was on the fourteenth day after the accident that I was consulted. The accident had happened in the Scilly Islands. Mr. Q—— had inadvertently walked down some steep stairs without observing them, and fallen a considerable height, cutting his face and forehead. He was a good deal stunned at the time, but not unconscious. He did not bleed from the ears, but blood came from his nose and mouth. He vomited soon afterwards, and was purged. On the next day he insisted that he was well enough to travel, and took the packet to Penzance, stayed the night, and returned to London. On reaching his home he was able to walk upstairs, but throughout he had been feeling far from well, and he at once took to his bed. It should be stated that there had been at first echymosis of the conjunctiva of the left eye, and this, taken in conjunction with the bleeding from the mouth and nose, may be held to indicate the probability of a fracture of the anterior part of the base of the skull. Dr. Taylor told me that during the ten days he had attended Mr. Q——there had been perfect consciousness, and no very marked symptoms, excepting pain in the head and double vision. The latter condition was due to partial paralysis of the right adductor, and occurred only when he looked to the right. There had been not the slightest defect of any limb, nor any failure of the sphincters. Up to the time of my visit Mr. Q—— had been accustomed to get out of bed to relieve his bladder, and although assistance was given him in standing, he said he did

* See "Illustrations of Clinical Survey," vol. i. p. 204.

not need it. The day of our consultation his friends had become alarmed by his having a tendency to wander, and his not wishing to speak. He had had during the night an acute attack of pain in the head. He did not refer the pain to any particular part. When I saw Mr. Q—— he preferred to keep his eyes shut, although there was very little light in the room. His memory was perfect, and he gave me a very clear account of his illness. He had a furred tongue, and his temperature was 102°. The temperature had varied from 100° to 102°. There had been no convulsions or rigors. I suspected a fracture in the anterior part of the base of the skull, and secondary inflammation of the sub-arachnoid spaces. It was decided to use hot pediluvia very frequently, and to push mercury to salivation.

I may state the treatment and its results very briefly. Mercury was given for about a fortnight in small but very frequent doses. The pain in the head ceased within a few days, and the temperature came down. In about a fortnight Mr. Q—— was able to leave his bed. He has since quite regained his health. The sixth nerve is still paralysed. Only slight ptyalism was ever produced, but it was kept up for some days. The pediluvia had probably some share in the cure. He had been made to sit for half an hour at a time, three or four times a day, with his feet in water as hot as could possibly be borne.

January, 1889. It is now three years since I attended the case described above. I have seen the patient once or twice in the interval, and again quite recently. He suffered for some time from diplopia from weakness of the right sixth, but it has now quite disappeared. He can read the smallest print with each eye, is free from headache, and enjoys on the whole excellent health.

No. III.—*Case of complete loss of Hearing from a fall on the Head.*

A man aged 22 came under my care at the Ophthalmic Hospital, on account of myopia. The chief interest of his case, however, was in connection with the fact that he was

absolutely deaf, and that his deafness had occurred suddenly after an injury to his head. No other function of his nervous system seemed to have suffered in the least. His deafness was so complete that I was obliged to question him in writing, and the information obtained as to his accident was necessarily somewhat meagre. I will give it exactly as I got it, in the form of question and answer.

Q. Could you ever see well?

A. No, I was always short-sighted.

Q. Were you deaf before your fall?

A. No. I could hear perfectly well.

Q. After the fall were you laid up long in bed?

A. I was five weeks in the hospital.

Q. Were you stunned?

A. Yes.

Q. How long do you think you were insensible?

A. About a quarter of an hour.

Q. Did you bleed from the ears or nose?

A. No.

Q. Were you deaf as soon as you came to yourself after the fall?

A. Yes, just as I am now.

Q. Why were you kept in bed so long?

A. I had very bad headaches.

Q. Were you paralyzed?

A. No.

Q. Had you any running from the ears while you were in the hospital?

A. No.

Q. What height did you fall?

A. About nine feet.

Q. Did you strike the top of your head?

A. I believe I pitched on the left side of the head.

Q. Can you smell well?

A. Yes.

It was two or three years after the accident when this man came under my notice. He was intelligent and cheerful, and appeared to be in excellent health.

Loss of hearing on one side only is a very common symptom

after injuries to the head, and I have known several cases in which the patient has made a perfect recovery with the exception of remaining totally deaf in the ear and with facial paralysis on the same side. When these two symptoms go together there can be little hesitation in accepting the explanation that the petrous portion of the temporal bone has been fractured, and the two nerves which pass through it irreparably damaged. Nor is it very difficult to account for loss of hearing when it occurs without facial paralysis. In such instances it is common to find that blood has been effused into the chambers of the ear. If the fracture have occurred behind the membrana tympani, this may easily happen without there having been any bleeding from the meatus. I possess a drawing from a case of this kind; the membrana tympani was entire, and the tympanic cavity filled with blood-clot.

It is at first sight much more difficult to explain a case in which the deafness is on both sides, and with symmetrical escape also of the portio dura. At first sight in such a case most would, I think, feel inclined to suspect the nervous centres rather than the bones through which the nerves pass; it seems so improbable that on both sides the portio mollis should be damaged and its fellow nerve escape, or that on both sides a fracture should open into the tympanum, yet not rupture the membrana; yet that this singular coincidence does occasionally occur I can give clinical proof.

A patient whose skull I possess was rendered absolutely deaf by a fall on his head. He had no paralysis of his face. He regained perfect consciousness within twenty-four hours of his accident, and had it not been for an attack of erysipelas it is probable that he would have recovered. Had he recovered his case would have very exactly resembled that of the man whose condition I have just described, for it is probable that he would have been absolutely deaf without any other symptoms. I have published the details of his case in the Transactions of the Pathological Society. It will be sufficient for our present purpose if I give a brief *resumé* of them.

He was brought into the hospital one Tuesday morning, having received a severe laceration of his scalp from a fall

into a ship's hold. On the day following the injury he had regained full consciousness, and had no degree of paralysis; he would put out his tongue when signs were made, and when we spoke to him he replied with a shout, "I can't hear." His deafness continued until the time of his death (on the eighth day). I will omit some very interesting facts supplied by his case, in reference to the diagnosis of compression, and confine my attention to the symptoms having reference to his temporal bones. On the day of his death, my notes state that he could still use his facial muscles.

At the *post-mortem* we found lines of fracture passing out from the foramen magnum on each side, curving forwards and outwards through the petrous portion of each temporal bone, and meeting in the body of the sphenoid. On both sides the tympanum was full of blood, and on both the membrana was entire. Here, then, we have a full and satisfactory explanation of the symptoms under discussion. But perhaps some may be inclined to reply that the case is not applicable to the explanation of the one which I have just narrated, since, inasmuch, as the man had an extensive fracture of the base of his skull, it is very improbable that he would have recovered. I cannot, however, by any means admit that it is rare for fractures of the base to recover. It is but seldom that we are able to prove that such fractures have occurred in cases in which the patient has got well; but I feel no doubt that recoveries after injuries of this kind are not by any means uncommon. There is no reason why recovery should not occur, nor why, supposing air not to have been admitted, a fracture of the base of the skull should not be repaired, just as a fracture of any other bone. It may be reasonably asked, however, whether, supposing complete deafness to have been produced by distention of the chambers of the middle and internal ear with blood, it is probable that the deafness would persist? In answer to this question I have no facts to adduce. Either event would, I should think, be possible, permanent deafness, or more or less complete recovery; and, as a matter of fact, we do know that most of those who are deaf for a while after injuries to the head subsequently regain their hearing. In some of these the deafness

may have been due to stretching, contusion, or even laceration of the trunk of the nerve, but in others it is very probable that blood-clot in the ear chambers was the cause. Probably much will depend upon the extent to which the internal ear is damaged; in some cases, possibly, the blood has not gained access to the semicircular canals. It is certainly rare for a patient to regain anything like good sight, in a case in which the eyeball has been filled with blood after an injury, and there is nothing but what is very probable in the supposition that permanent loss of hearing might result from a parallel lesion.

In reference to the loss of hearing after injuries to the head, I may then mention several different causes as possible. 1st. The portio mollis may have been torn through within the cavity of the skull, as the result of sudden movement of the brain (in such a case it is probable that the portio dura would suffer also). 2nd. The petrous portion of the temporal bone may have been fractured with displacement and laceration of the nerve trunk (here again in all probability facial paralysis would accompany the deafness, and both would be complete). 3rd. With a fissure fracture of the petrous bone and no displacement, it is quite possible that the nerve trunks may have been contused but not torn through, or that blood may have been effused around them; in this condition the loss of function would be either partial or complete, and it would, very probably, not be permanent. 4th. Either with or without damage to the nerve trunk, fracture of the petrous portion may have caused effusion of blood into the middle or internal ear one or both. 5th. There may have been rupture of the membrana tympani. 6th. It is quite possible that a degree of deafness, probably merely temporary, may have been caused by the presence of blood in the external meatus.

I have left to the last the suggestion that it is possible that an extravasation of blood in some part of the nervous centres may extinguish the function of hearing, and that it may do so either on one or both sides. Histological research would certainly bear us out in the belief that there is a central part, the disintegration of which would effect this

result. If, however, we try to realize the manner in which extravasations occur in the central parts of the brain, we shall certainly be disposed to admit that it is extremely improbable that such a cause could totally abolish a special sense without doing anything more; it is like Shylock's pound of flesh, difficult if not impossible to take with exactitude. Such effusions may, perhaps, not infrequently account for the partial loss of a special sense, or for its entire abolition in association with more extensive forms of paralysis. When however, we find no symptoms whatever, excepting the loss of hearing, and that loss absolute, we are obliged, as far as our present facts go, to infer that the damage has been done outside the nervous centres, either in the sense-capsule itself, or in the nerve cord which connects it with the sensorium.

CURES; SCHEMATA OF TREATMENT; AND THERAPEUTICS IN GENERAL.

No. I.—*The local treatment of Psoriasis.*

My favourite prescription for psoriasis is the following—

℞ Acid., Chrysophanic, gr. x.
Liq., Carbonis Deterg. (Wright's) m x.
Hydr., Amm.-Chlorid, gr. x.
Adip., Benzoat., ℥j.
Misce fiat Unguent.

The patient is instructed to remove all scales as much as possible, either by washing or a warm bath, and then to spend half-an-hour (before a fire if the room be cold) in rubbing this ointment into all patches. It is better to leave the ointment on all night, but if this is, for any reason, too disagreeable, it may be wiped off (not washed). In the morning a bath with soap is taken. In most cases I prescribe arsenic, along with the local treatment, as helping the cure, and tending to make it more permanent, but I rely chiefly on the ointment, and sometimes use it alone. I have published * a portrait, in which it was used on one side of the body only, whilst arsenic was given internally, the result being the disappearance of the eruption on the parts treated locally, whilst it still persisted on the others. This experiment was conclusive. It will be observed that the quantity of chrysophanic acid is but small, and I may say that I often prescribe a yet weaker ointment. Strong ointments both irritate and stain much more, and not unfrequently the patients naturally refuse to continue them. With this ointment there is but little risk of inconvenience, and patients rarely complain

* See "Illustrations of Clinical Surgery," vol. ii.

much of the staining, especially if they are allowed after a prolonged inunction to rub it off at once. This formula has been for many years in constant use at the Blackfriar's Hospital for Skin Diseases, and gives great satisfaction. I believe that the tar solution often has a material effect in preventing staining. As years go on I find that I prescribe arsenic with increasing caution, and rely more and more upon local treatment of the kind indicated.

As an illustration I will quote the experience of one of the last psoriasis patients whom I have seen. Mrs. A—— consulted me in June, 1888, for common psoriasis, from which she had suffered for twelve years, and for which she had had much specialist treatment. I ordered arsenic and the ointment above mentioned. I did not see Mrs. A—— again for ten months. She then came to report that the ointment was so effectual that she had long ago left off the mixture. Her experience was that two weeks of the ointment always removed the patches, and that after a six weeks' interval they would usually begin to threaten again. At the time of her visit her skin was absolutely free. The ointment she said always left her skin brown, and it took a week or more for the discolouration to wear off. Then followed a month of a perfectly clean skin, and then a few spots would again show themselves. Thus she could always keep the eruption in check, though it was never permanently cured. This, I fear, is almost as much as we can expect in most cases of psoriasis. With perseverance, however, the relapses become more and more slight, and the intervals longer, so that in the end the disease is virtually cured. The reverse is the fact if psoriasis is neglected.

No. II.—*Simulation of Hodgkin's Disease in Syphilis (?) Immense glandular tumours removed under Iodides. Does a cure by specifics prove specific nature?*

I find in Dr. Mc'Call Anderson's interesting brochure, just published, on "Syphilitic Affections of the Nervous System," a very noteworthy example of the cure of an immense glandular

tumour by iodide of potassium. Not only is the case important as an instance of recovery from a very formidable complaint, but because it raises the question as to how far we are justified in regarding recovery under the iodide as proof of the syphilitic nature of any malady so cured. The case was one which was at first considered to be Hodgkin's disease, the patient, a man of thirty-five, apparently in "perfect health," having enlarged glands in both sides of his neck. The tumour on the right side is described as "enormous," and as having first commenced two years ago behind the ear. Not only were the cervical glands enlarged, but those also in the axillæ and inguinal regions. On the right side the tumour extended from the middle of the neck to several inches below the nipple, and measured fourteen inches in length, and ten in width. It was crossed by enlarged veins, and at parts the skin was reddened. The patient had been accustomed to laborious work, and had drunk freely; he was, notwithstanding, "well nourished."

In the belief that the disease might be syphilitic, iodide of potassium in large and increasing doses was ordered, and the man was advised to abstain from all labour. The salt was commenced in doses of ten grains, and increased to thirty-three times a day. It was begun on the 29th of January, and the improvement was almost immediate. On the 12th of July, Dr. Hugh Cunningham, of Dumfries, who was in charge of the patient, wrote, "You will be glad to hear that the tumours have almost entirely disappeared, scarcely a vestige of any of them now exists."

We have, then, in this case, a clear and definite instance of recovery from a general tendency to enlargement of the lymphatic glands, under the use of the iodide of potassium. Does the cure by this remedy prove that the disease was syphilitic? I cannot think that it does. I have never seen enlargement of lymphatic glands advancing to the condition described in this case in connection with syphilis; and further, the evidence of the man having had syphilis at all is very slight. The case is, in all its features, a typical one of lymphadenoma; in other words, of general infective enlargement of lymphatic glands without tubercle. We must re-

member that iodide of potassium and iodine gained repute in the first instance as remedies for enlargements of glands. It was only after their credit had been well established for this disease, and for bronchocele, that they came to be employed for syphilis. In making these remarks, I by no means wish to be considered as expressing an opinion that the disease in question was not syphilitic. I merely raise the doubt, and demur to the doctrine that the mode of cure proves the nature of the disease. Whatever the latter may have been, the fact of the cure is of great interest, for we are not accustomed to see any form of lymphadenoma yield so quickly and definitely to treatment. More usually this malady resists all our remedies.

No. III.—*Arsenic as a cause of Herpes Zoster and of Dull Eyes.*

I prescribed arsenic, in very full doses, for Mrs. H——, in order to cure psoriasis of the nails. It was effectual; and she took it regularly for several months. In March, 1888, she reported to me that about the previous Christmas she had suffered a most severe attack of shingles on the right side of her chest. Her surgeon, in Yorkshire, where she was, had told her that he had never seen a case with so much inflammation. Fortunately for me he had not suggested to her any suspicion as to its having been caused by the medicine. The latter was, however, discontinued, as Mrs. H—— was suffering from a cold.

In this case, my patient was strongly of opinion that the arsenic did not improve her personal appearance. She was greatly distressed by the state of her nails, and willing to do anything for their cure, but she thought that the arsenic made the whites of her eyes look thick and a little yellow. The blue of the sclerotic, which in her showed through, did not do so as much as usual. A friend who lived with her had assured her that the medicine made her eyes look dull, and that the blue iris became more grey. I could myself somewhat confirm this impression, for Mrs. H—— certainly looked older, and had a less brilliant complexion than for-

merly. She was naturally fair and florid. The nails, which had got well when the drug was pushed, had somewhat relapsed during the two months during which it had been left off. The arsenic had not disagreed in any other way.

By several observers cases have been published in proof that in some obscure manner the skin may be made muddy and dull by the medicinal use of arsenic. I have myself given an extreme illustration of this in the Pathological Transactions for 1888. In this instance the skin became earthy and brown, and in some places took on the condition of psoriasis. Pricking of the eyes and redness of the conjunctiva are also well-known results. The patient whose case I have given above is, however, the first who has complained of objective dulness of the eyes. She was an acute observer, and so was her companion, and I have no doubt they were right. It is quite certain that arsenic does affect the nutrition of all the tissues and produce changes, it may be very minute at first, concerning the precise nature of which it is difficult to give any explanation. In arsenical herpes zoster we have a definite form of peripheral neuritis, but it is far from being the only disturbance of nutrition which we witness in connection with the use of this powerful drug.

MISCELLANEOUS MEMORANDA, EXTRACTS AND REVIEWS, &c., &c.

No. I.—*On some curious Phenomena of Quiet Gout. Pain in the Knee evoked only in the act of kneeling.*

THE expression "quiet gout" may, I think, be suitably employed as applicable to the many cases in which those who are gouty experience no material inconvenience. Such symptoms as do occur are perhaps rather a source of amusement and joke than of real pain or trouble. Very often they are quite misunderstood, but many persons of gouty proclivities know exactly what they mean and at once take their dietetic measures accordingly. The term "latent gout" is perhaps of almost equivalent meaning. The phenomena by which this condition is recognized are infinitely varied and some of them very peculiar. They are well worth detailed study, not alone on account of their value as "revealing symptoms"—that is as betraying what would otherwise remain unrecognized—but because they present us interesting problems as to the precise method of their development. A great many of them are probably caused by locally restricted forms of peripheral neuritis. I will describe such an one by way of illustrating what is meant. A gentleman passed middle age, who had never suffered from an acute attack of gout, but who for many years had experienced many warnings, became the subject of a very real but almost ludicrous affection of one knee. He could walk quite well, could bear to have the knee handled in any way, and there was not the slightest swelling. There was one thing, and one only which he could not do without pain—he could not kneel on any soft substance. If he took care how the knee was placed on a hard floor he could bear the pressure without any pain for some

time, but to kneel on a cushion might produce an explosion of pain which would make him cry out. He was often, so to say, "caught" when in the act of getting into bed he knelt on the soft bed. The pain was of the nature of a local explosion, and was quite limited to an area the size of a crown piece. Very curiously after one explosion had occurred it was difficult to produce a second which should in the least approach it in severity, and after two or three shocks he could kneel firmly without any pain whatever. The liability to these attacks, which occurred invariably every night unless he was careful not to put the knee on the bed, lasted for a month or two, and then under treatment by alkalies and a more restricted diet passed completely away. A year later however, the liability returned, and again lasted a month or two. It has been since threatened on several other occasions. Another symptom which confirmed the suggestion that something of the nature of peripheral neuritis was the cause of this liability was, that the skin in front of the knee became for a time very decidedly anæsthetic. The numbness disappeared gradually after the liability to pain went off.

It is not very often that our patients will describe their symptoms to us with the accuracy and detail given in the above statements; but it so happened that I was about the same time consulted by another patient equally intelligent and observant, and who had experienced precisely the same thing. There was the difference, however, that in him the pain was more persistent, and that he could not kneel under any conditions. Still, however, a soft substance was the means of finding out the pain much better than a hard one. On my mentioning to him what my first patient had described as to his difficulties of getting into bed, he exclaimed, "That is just my case; I have to wriggle into bed any way I can to avoid pressure on the knee, but when once in, I am quite free from pain." In both these cases the proof as to gout consisted in the fact that the patients were liable to twinges and prickings in the joints; and that their symptoms were in the most definite manner influenced by the kind of wine which they took.

No. II.—*Statistics of Disease Seventy-five Years Ago.*

One of the earliest of English contributions to the statistics of prevalence of different diseases was made by Sir Gilbert Blane. It is to be found in the Transactions of the Medico-Chirurgical Society for 1813, and contains information of great interest. Sir Gilbert states that he had kept records of his practice at St. Thomas's Hospital for ten years, and of all his private cases during the same period.

Amongst other matters I note the following:—

Gout was common in private, but unknown in the Hospital. "Not a single case of it is to be found in the Hospital list, whereas there are in the private list a hundred and thirty, constituting about a twenty-sixth part of the whole. No disease affords so strong a proof of the power of habits of life over health." Whether it may be taken as proof that the habits of the labouring classes have changed during the last half century or not, I do not know, but there can be little doubt that St. Thomas's would now show a certain number of cases every year. Even our workhouse infirmaries are never without their cases of true gout. The tables of St. Bartholomew's for 1887, show no fewer than eighteen cases with one death. Amongst Sir Gilbert's Hospital cases there were 751 of rheumatism, with a mortality of only 13. It is expressly stated that very few of them were acute cases.

Venereal complaints give a total of 202, with a mortality of 3. No details are afforded.

Amongst the rarities are to be noted a death from wound of the epigastric artery in tapping, and a case in which it is asserted that "the menses came from the navel."

The nomenclature of the hospital cases is far less detailed than that used for Sir Gilbert's private patients. He would appear to have been no pedant, and English appellations are for the most part employed. We have a case of "Intolerance of touch on the whole skin," and two of "Excessive sensibility to cold." Both these terms are, I believe, well descriptive of the prominent feature in conditions of health which have not even yet received any better names nor even any special clinical notice. The latter is perhaps a form of Raynaud's

disease. "Swine-pox" is used as a term equivalent to "pemphigus." One case is recorded as "Flatus per vaginam," clearly the name of the symptom only, and three are put down in plain terms as "excess of venery," a designation of the cause but not of the malady. Rickets, not mentioned in the Hospital list, has only four cases out of near upon 4,000 *private* patients. Out of this large number only 32 are mentioned as venereal, probably a far smaller proportion than any physician of the present day is accustomed to diagnose as such. Skin diseases are with very few exceptions lumped together under the head of impitiginous affections (160). Carbuncle has only three cases, and only one death. Shingles claims five cases, and the following item of interesting detail is given: "The patient after recovery was for the remainder of her life, which extended only to a few years, almost incessantly tormented by severe pain in the abdomen, in which nothing gave relief. On inspecting the body after death it was found that immediately under the spot on the right side of the abdomen, which had been the seat of the shingles and to which the subsequent pain had been referred, adhesions had taken place, and no doubt remained that these pains had been occasioned by the mechanical dragging of these attachments." Amongst 23 cases of chlorosis is included one in which the patient was "a male of seventeen, who had all the character of this disease except that which is peculiar to the female sex." He recovered, as girls do, under aloes and iron. "Deficient secretion of tears" has given as its synonym "Xerophthalmia," but without, unfortunately, any explanation as to the features of the disease in question. There were two cases. Finally, it must be noticed that five patients were under treatment for "old age," and that four of whom died of the malady. Professor Humphry may be interested to know, if he has not already found the passage, that "the common symptoms characterizing the disease of mere old age were frequent rigors, frequent and long-continued jactitations, producing a state of considerable suffering, and wearing out the residue of life by a sort of hectic fever." Their ages were from 80 to 99.

To the tables from which the above facts are quoted the

following note is appended, the concluding sentences of which are well worthy of attention at the present day:

"In constructing these Tables, the author has, perhaps, exposed himself to criticism, in point of technical nosology. If so, it has not been from want of a due sense of the utility of methodical precision, for he sets a high value on nosology, not only as it assists in discriminating and ascertaining the nature of diseases, but as it contributes to improve and enlarge those comparative views of them which it has been the principal end of this communication to recommend and apply. He has accordingly had regard to it in these Tables. But as they were originally drawn up for his own private satisfaction, and as he deems the *phænomena* of the human body in a state of disease to be the most anomalous branch of nature, he neglected the niceties of classification, and in offering them to the public, he feels more studious of that perspicuity and fidelity which may render them intelligible and available to the plain and practical reader, than to strain them into a conformity with system."

No. III.—*The supposed influence of Pregnancy on Retentiveness of Life.*

I find in an entomological work the statement that it is especially difficult to kill female moths when containing eggs. A similar opinion is held by butchers that pregnant animals always "die hard." I have been assured that a ewe in lamb will, after division of the vessels in the neck, continue to struggle much longer than would be the case in one not pregnant. There is also a widespread belief that pregnant females seldom die of disease; that they withstand contagion better, and pass through attacks of illness—whether inflammations or specific fevers—with more security than those who are not so. It may easily be the fact that these supposed observations have no real foundation, and are the result merely of preconception on the part of the observer. They are, however, worthy of attention, and the existence of similar belief in such different departments seems to claim investigation. Before attempting any explanation it is desirable to re-examine the facts.

A CATECHISM OF SURGERY; WITH CASES FOR DIAGNOSIS.

PREFATORY NOTE.

I HAVE written the following Questions and Answers, with Cases for Diagnosis for the help of advanced students and young practitioners. They are intended for use in recapitulation and self-examination and not as a substitute for reading, and far less for ward study. The student who wishes to derive advantage from them will do well to dwell on the questions with patience, and to attempt their answers for himself before reading those which I have given. The "cases for diagnosis" may count also as Case-records, since they are all careful narrations of actual facts. In most instances they will be given from my own observation, but in a few I shall take cases recorded by others. It is my intention to devote in each number of the ARCHIVES about the same space to this department which the present pages occupy. I shall intentionally avoid any arrangement of subjects, shall not attempt to discriminate in much detail between "Medicine" and "Surgery," since my catechism is intended for the assistance of those who are seeking a wide and general acquaintance with professional subjects.

No. I.—*On the Sources of Vaccine Lymph.*

It has long been known that "cow-pox" is met with only on the udders of cows, and never on the scrotum or other parts of bulls. What explanation can be given of this fact?

"Cow-pox" would appear to be almost extinct. Great efforts have been made to procure a fresh supply of lymph from a cow affected with the natural disease, but neither in England nor on the Continent can any animal * so affected be found.

* I shall refer to Dr. Cruikshank's recent report on some examples of it at a future time.

What explanation can be given of this curious extinction of a disease which was fairly common in Jenner's time?

Mention the possibilities as regards the original sources of the lymph now in use as vaccine.

ANSWERS.

If we suppose that "cow-pox" was a disease communicated to the cow by the hands of milkers suffering from variola, the facts will be fully explained.

The same explanation will apply also to the second question. Milkers now never suffer from small-pox, and consequently no cows are infected.

The vaccine now in use may be derived:—

1. From the vesicles of cows affected with "cow-pox" (a specific disease originating in them). This is not probable.

2. From vesicles produced on the udders of cows by contagion from the hands of milkers suffering from small-pox.

3. From vesicles produced intentionally on the cow by the inoculation of variolous matter (Badcock's lymph).

4 From vesicles produced intentionally on the cow by the inoculation of human vaccine (*i.e.*, modified variola).

No. II.—*The Uses and Abuses of Splints.*

1. Mention the several purposes for which splints are used in fractures.

2. Are splints needed in all cases of fractures of bones?

3. Are they ever injurious?

4. In what cases should they be avoided?

5. In what forms of fracture are splints most needed for the purpose of extension?

6. How would you treat a fracture in which you had decided that splints would be injurious?

ANSWERS.

1. (1) For extension; (2) To give support and prevent movement; (3) But rarely to secure co-optation by making pressure.

2. No; they are needed only when one or other of the above indications can be fulfilled.

3. Unless really necessary all pressure on injured parts and all prolonged fixation and enforced rest are directly injurious. Especially may swelling of the limb and stiffness be the results in elderly persons.

4. Splints may be avoided in all cases in which it is difficult to decide whether there is fracture or not, for in these there is neither displacement nor mobility. Fractures through the expanded joint-ends of bones are often better without splints, *e.g.*, the head of humerus and carpal end of radius.

5. Whenever there is no tendency to shorten, extension is worse than useless, *e.g.*, when one of a pair or of several is broken, *e.g.*, one bone only of the forearm, one only of the leg, or one of the metacarpals.

6. Apply a spirit lotion, and keep the limb at rest on a cushion without any sort of constriction.

No. III.—*On the Diseases of Arteries.*

1. Distinguish between primary fatty degeneration of the arterial coats and atheroma.

2. Is there any difference as to the arterial coat affected in each?

3. How would you demonstrate this difference in the post-mortem room?

4. Is primary fatty degeneration confined to the inner coat?

5. Is it a frequent cause of aneurism, thrombosis, or apoplexy?

ANSWERS.

1. Passive, primary, or simple fatty degeneration is usually a senile change, or occurs in states of impaired vitality when other tissues also suffer. It is not attended by the evidences of inflammation, thickening, swelling, or central softening, which are seen in atheroma.

2. Atheroma begins in the deeper part of the inner coat, and fatty degeneration in the epithelial or innermost layer.

3. By stripping off the innermost layer. In the case of atheroma this would leave the diseased patch behind, whilst

in the case of fat it would take it away and leave healthy tissues beneath.

4. No ; it may occur also in the muscular coat, but is less frequently seen in it.

5. It often affects the cerebral arteries, and as it occurs usually to the aged it is a frequent cause of apoplexy from rupture. It is not a common cause of either thrombosis or aneurism, excepting of minute aneurisms in cerebral vessels.

No. IV.—*On the Diseases of Arteries.*

1. Mention the principal diseases to which the coats of arteries are liable.

2. In what part does atheroma begin ?

3. What vessels are most liable to suffer from atheroma ?

4. What are the supposed causes of atheroma ?

5. Is it an inflammation or a degeneration ?

6. What is meant by primary calcification of arteries ?

7. In which coat does primary calcification begin ?

8. What arteries are more usually affected by primary calcification ?

9. To what diseases may the several forms of arterial disease lead ?

ANSWERS.

1. Fatty degeneration, atheroma, and primary calcification.

2. Atheroma begins in the deeper layers of the inner coat.

3. Atheroma may occur in any artery, but it most frequently seen in the aorta.

4. It is supposed to be caused by strain of the vessels, but is perhaps predisposed to by syphilis and by intemperance.

5. It is distinctly a process of chronic inflammation, and may be attended by considerable swelling, and followed by softening and ulceration.

6. Primary calcification is a term applied when no preceding atheroma has been present.

7. It begins in the fibres of the muscular or middle coat.

8. The arteries of the limbs, and especially those of the lower limbs, are much more liable to primary calcification than the aorta.

9. Calcification occludes the artery, and may lead to gangrene; or it makes the coat brittle, and may lead to rupture and apoplexy. Atheroma may cause aneurism, or if ulceration is present, may lead to embolism.

No. V.—*On Amputations.*

1. What is the best method of amputation for general use?
2. Why is the circular method but rarely done?
3. What is the objection to flaps by transfixion?
4. What are the measurements for a Teale's amputation?
5. What are the objections to Teale's method, and what its advantages?
6. Is the method by "flap-skin, circular muscle" applicable to all parts?
7. What should be the length of the skin flaps in relation to the circumference of the limb?
8. In a circular amputation how far below the place of section of the bone should the skin be divided?

ANSWERS.

1. By oval skin flaps and a circular sweep through the muscles.

2. The old circular method is tedious in performance, requires much painstaking, and may easily be so done as to leave too little covering.

3. Transfixion flaps are liable to subsequent hæmorrhage, as small vessels may have been divided close to the main trunk. This method also makes very large cut surfaces.

4. In a "Teale" the front flap is square, its sides equal to half the girth of the limb. The hinder flap is one quarter the length of the long one.

5. A "Teale" makes an excellent stump, and if exactly done the flaps are sure to fit, but it has the drawback that it sacrifices the length of the limb.

6. "Flap—skin; circular—muscle," is applicable to almost all parts, and with modification as to the relative size of the two flaps, may be adapted to almost all cases.

7. Under ordinary conditions, and when the two flaps can

be cut of equal length, they should be one-third the girth of the limb.

8. One-third of the girth of the limb, or very nearly.

No. VI.—*On Concussion of the Brain.*

1. What are the stages of Concussion of the Brain?
2. Describe the symptoms of the first stage.
3. What treatment would you adopt in it?
4. If a patient, having received a severe injury to the head from a fall, should die without regaining consciousness, what should you expect to find at the autopsy?
5. Under what circumstances would you bleed after injury to the head?
6. What are the best substitutes for bleeding?
7. In an ordinary case of severe concussion what symptoms would you seek for as indicating local injury?
8. What are the symptoms most characteristic of the reaction stage of a concussion case?
9. What symptoms in the reaction stage are of bad omen, and what do they imply?

ANSWERS.

1. The stage of collapse; the stage of reaction or the "sleepy stage"; the stage of convalescence.
2. The patient looks as if dead; is pale, with a feeble, fluttering pulse; irregular and weak inspirations; clammy skin and dilated pupils.
3. Put the patient under conditions to favour recovery of the circulation, and wait.
4. Contusion or laceration of one or more parts of the brain.
5. If in the stage of full reaction there should be no return of consciousness, or it should be very imperfect.
6. Heat to the feet, cold to the head, and brisk purgatives.
7. Search should be made for symptoms of paralysis. The limbs should be tested; the pupils, the muscles of the eyeballs, and those of the face (7th nerve) should be examined. If it is practicable ascertain whether the patient can see and hear on both sides.

8. A tendency to sleep, with the possibility of being roused. The patient sleeps on his side, not on his back. He can be got to answer questions and to take food, but immediately goes to sleep again if left alone.

9. If the patient sleeps on his back instead of his side; if he will not answer questions; if he passes his urine into the bed. These symptoms imply contusion of brain, and make recovery doubtful.

No. VII.—*On Piles or Hæmorrhoids.*

1. What are piles?
2. What is the difference between external and internal piles?
3. What is meant by the term "strangulated piles"?
4. What are the symptoms of piles in an early stage?
5. What is meant by "a skin pile," or "shrivelled pile"?
6. What are bleeding piles?
7. What dangerous symptoms may be produced in cases of aggravated or neglected piles?

ANSWERS.

1. Piles are essentially varices at the anus. The dilated veins become, however, embedded in thickened and vascular mucous membrane, and the arteries enlarge also.

2. There is no clear distinction between external and internal piles, and the terms had better be disused. All piles begin internally.

3. Strangulated piles are piles which have become protruded and gripped by the sphincter, and are so much swollen that they cannot be returned, or if returned, will not remain; this condition constitutes what is popularly known as "an attack of piles."

4. The early symptoms of piles are a sense of fulness at the anus, especially noticed after defecation; mucous discharge, and occasional bleeding.

5. A skin pile is a fold or lobule of mucous membrane, which has become cuticular after the extrusion and shrivelling of a pile.

6. "Bleeding piles" are piles which bleed from the mucous surface during the pressure produced by defecation.

7. The patient may become exsanguined and debilitated to an extreme degree.

No. VIII.—*On Piles or Hæmorrhoids.*

1. If piles are excised is the bleeding venous or arterial?

2. Is the excision of piles a safe procedure?

3. What is the most generally suitable operation for the removal of piles?

4. Is the hæmorrhage from "bleeding piles" venous or arterial?

5. What is meant by the popular expression, "blind piles"?

6. What is "an attack of piles"?

7. Does thrombosis ever occur in piles?

8. What other methods may be adopted for the radical cure of piles besides their ligature?

ANSWERS.

1. It is arterial. The arteries and veins travel in company and are both dilated.

2. No prudent surgeon would ever excise piles without special precautions against bleeding.

3. An operation which consists in ligature of the pile after its base has been isolated by an incision where the skin and mucous membrane join.

4. When piles bleed the blood comes chiefly from surface capillaries, but it may be from small arteries. Very rarely indeed is it venous.

5. A "blind pile" is a pile which never bleeds.

6. An attack of piles usually designates the strangulation of extruded piles, but it may now and then be applied to the occurrence of thrombosis.

7. Yes; the blood in a large dilated vein may coagulate. Absorption will follow, and the pile become obliterated. Sometimes, but not often, inflammation follows the thrombosis.

8. Piles may be removed by the actual cautery, they may

be cut away after clamping, they may be crushed, or they may be destroyed by the free application of fuming nitric acid. The last is applicable to small, very vascular piles, when they occur in debilitated subjects.

No. IX.—*On Conical Stumps and on Amputation.*

1. What are the usual causes of conical or "sugar-loaf" stump?

2. In what parts is it most likely to occur?

3. May it be reproduced after a second operation?

4. What points should be carefully attended to in all amputations?

5. Give the principal rules for success in the performance of amputations.

ANSWERS.

1. It may be the result of sloughing of flaps (rare), or of a badly performed operation (still more rare), or of the continued growth of the bone in young persons (common).

2. The upper arm and the leg, because the humerus and the tibia grow chiefly from their upper ends.

3. In growing subjects conical stumps may be reproduced, and it may be necessary to have the bone shortened two or even three times at intervals of a few years.

4. (*a*) To secure plenty of covering for the bones.

(*b*) To retain only sound structures.

(*c*) To divide the parts cleanly, and to cut all arteries transversely.

(*d*) To secure all arteries most patiently before closing the stump.

(*e*) To provide liberal drainage.

(*f*) To give adequate and even support to the stump, without undue pressure.

5. Be very careful to have the circulation efficiently controlled by torniquet or otherwise, so that you may not be hindered by bleeding.

Be very deliberate at all stages.

Have your assistants well instructed what to do.

No. X.—*Concussion of the Brain.*

1. What is meant by the term "sleep-stage of concussion"?

2. What symptoms are of bad import in a concussion case?

3. What do you mean by coma?

4. In what does coma differ from the sleepy stage of concussion?

5. Can a patient in the first stage of severe concussion be roused to answer questions?

6. In a case of uncomplicated concussion does the patient usually wet his bed?

7. What are the commoner complications of concussion of the brain?

8. In a case of severe concussion what symptoms would make you suspect fracture of the base of the skull?

9. In the collapse of the first stage of concussion are the pupils contracted or dilated?

10. What is the state of the pupils in the re-action or sleepy-stage?

ANSWERS.

1. The stage of reaction in which, with full return of circulation, there is a remarkable tendency to normal sleep.

2. Profound insensibility; stertor; recovery of circulation without recovery of consciousness.

3. Profound insensibility, independently of collapse.

4. In the sleepy stage the patient may be roused; in coma, he cannot.

5. No. He is as if nearly dead, and cannot be roused, but it is from collapse, not coma.

6. No. If he does, it is indicative of an aggravated case.

7. Fracture of the skull; paralysis of special nerves; contusion or laceration of the brain.

8. Bleeding from ear or nose; ecchymosis of the eyelids; deafness; facial paralysis.

9. Always dilated, for the patient is as if dead.

10. Moderately contracted as in normal sleep, but ready to dilate at once if the patient be roused:

No. XI.—*A Case for Diagnosis.*

An old gentlemen of 63 is almost blind. He has very small pupils, and after repeated use of atropine they dilate but very little. He has bare perception of light, and the two eyes are almost exactly alike. He has had amputation through the thigh, and subsequently at the hip joint on account of old, standing disease of the bones of the leg. He says that he nearly died of secondary hæmorrhage after the last amputation, and to the debility which followed it he attributes the final failure of his sight. It appears, however, on cross-questioning him that his sight has been weak all his life, and that the deterioration has been very gradual. Two of his brothers, both older than himself, are blind, and a sister has lost one eye, and is defective in the other. Excepting that he is a little deaf he has no other symptoms of disorder of the nervous system, and says that he never knew what a headache was. Until about a year ago he says that he could see by the aid of a strong magnifying lens to read large print to one of his blind brothers.

What is the probable cause of the failure of sight?

On what further points ought inquiry to be made in order to complete the history?

ANSWER.

It would be desirable to know whether any of the patient's predecessors were blind. Whether his father and mother were first cousins, and whether, in the earlier stages of his disease, he experienced any special difficulty in seeing by artificial or poor light.

(The answer to all these questions in the case before us was in the negative.)

The very slow progress and almost lifelong history of defect make it almost certain that the disease is that form of choroido-retinitis, commonly known as retinitis pigmentosa; and the occurrence in three or four members of the same family of children gives strong support to this diagnosis. So also does the entire absence of other symptoms of disorder of the nervous system. It is exceptional, however, that there

should be no history of night-blindness, and that no predecessors are known to have suffered.

Facts additional to the case-statement.

On ophthalmoscopic examination the retina was found covered with black pigment, arranged in the form of bone-corpuscles, stars, or spiders. The optic discs were pale and waxy, and the central vessels diminished to mere threads.

No. XII.—*Case-statement for Diagnosis.*

A gentleman of 29, of fair complexion, of gouty family. He gives the history that when a boy at Eton he was six weeks in bed with an acute attack of what was called eczema. He believes that he also had eczema in infancy. He now frequently suffers from a slight form of acne on the forehead, attended by peeling and cracking of the skin. He has observed that all wines bring out the eczema, and he mentions one particular place of residence where he invariably gets it, in consequence, as he believes, of the water containing iron. The eruption now usually comes on the face, but sometimes on the arms also. It itches so much, and is so invariably aggravated by his scratching, that he always sleeps in gloves. The disease for many years has been kept in check, and for the most part cured, by local applications.

Is this a case of Hebra's Prurigo?

Is it usual for the eczema of infants to persist or to relapse in after life?

What principles of local and general treatment should be adopted?

ANSWER.

The case is one of common eczema, which has been neglected, in a patient of a pruriginous skin and very prone to scratch. It is not very uncommon for the eczema of infants to persist in a state of incomplete cure, or, after cure, to recur in the course of years.

The acute attacks in infancy, and again in boyhood, prove it to be really eczema, and its amenability to the remedies for that disease confirms the diagnosis. The patient should

be careful as to his place of residence. A moist air, and very probably the seaside, would suit him. He should, if possible, always use rain water to wash with, and should put a little borax into it. He should avoid wine, beer, milk, sugar and fruits. Arsenic will probably make him worse. Very weak lotions containing tar will be suitable. Above all, he must never scratch or rub. In order to avoid he should always keep a weak tar wash at hand.

No. XIII.—*Dean Swift's Illness. A Case for Diagnosis.*

Dean Swift was born in 1667. He records: "Before I was twenty I got a cold, which gave me a deafness that I could never clear myself of; my left ear has never been well since."

He described his "two life-long enemies" as "a giddiness and coldness of stomach." His accounts as to their beginning are not uniform. Sometimes he says that the giddiness came first, and sometimes that the deafness did so, and sometimes he attributes the onset to catching cold, and sometimes to having "eaten a hundred golden pippins at a time." Respecting the latter notion Dr. Johnson sagaciously writes: "The original of diseases is commonly obscure, and almost every boy eats as much fruit as he can get, without any inconvenience."

In 1708 Swift told Archbishop King that he had been persecuted with "a cruel distemper of giddiness" in his head for more than seven weeks, which would not suffer him to write or think of anything. These attacks recurred, with intervals of two or three years. In 1727 he had a nine weeks' attack, in 1733 one of seven months, and in 1737 he recorded that he had been "unfitted for human conversation by giddiness," &c., for seven weeks.

His "fits" were attended by giddiness and sickness, and he used to take brandy for their relief. In 1708 he uses the expressions, "Often giddy, God help me;" "Brandy for giddiness;" "Horrible sick;" "Much better, thank God, and M. D.'s prayers;" "An ill fitt, but not to excess;" "Giddy fitt, and swimming in head. M. D., and God help me;"

"Terrible fitt, God knows what may be the event." Swift lived to be seventy-eight, having been during the last year of his life in a state of senile dementia. An attack of convulsions (his first) preceded his death.

What was the nature of his ailment?

ANSWER.

His attacks were clearly of the nature of Menier's symptoms, or "Labyrinthine vertigo" (see Dr. Bucknill in *Brain*, Jan., 1882). They were of unusual severity. They illustrate the facts: That violent sickness as well as giddiness may attend the condition; that long intervals may occur between the attacks; that the attacks may vary very much in severity; that the liability to them may persist continuously for weeks, or even months, and then pass away; that they are not indicative of any aggressive brain disease, although for the time incapacitating the sufferer.

Swift's intellect remained clear and vigorous till within a year or two of his death. His frequent and severe attacks of giddiness may have had some effect upon his temper, and may have increased his tendency to gloom. There is no proof that they did so, or that the ear disease which caused them had anything to do with the brain disorder which closed his life. He was never, until the last, really insane, was never epileptic, and never had paralysis. He himself summed up his conditions in the following line:

"*Vertiginosus, inops, surdus, male gratus amicis.*"

No. XIV.—*A Case for Diagnosis.*

A man aged 50, who was in good health, and had previously had good sight, was one day engaged, for a longer time than usual, stooping over a bench, cutting leather. On the following morning he had the subjective symptom of drops of water falling rapidly, one after the other, from his hat brim. This appearance was before his left eye only, and it continued all day, and more or less for several days. Next he saw all flames of a green or blue colour, and then he had "electric flashes of light" in his eye. When examined three weeks

later, he could perceive objects only in the lower and inner parts of the field. There was no increase of tension.

There had been no pain in the eye, but a certain amount of circumorbital aching at times.

What was the probable nature of his ailment?

How do you explain his several symptoms?

ANSWER.

The symptoms which attracted the man's attention indicated some cause of irritation in the retina. As it increased and was soon followed by loss of sight in a large part of the field, the most probable lesion was an advancing detachment of the retina. The circumstances under which the symptoms began, stooping forwards, were exactly those likely to cause retinal detachment. The absence of pain and of increase of tension negative the suspicion of glaucoma. The alteration in the colours of flames was not the same thing as the coloured rings seen in glaucoma, and was to be explained by disturbances in the retinal elements.

Statement additional to case.

The ophthalmoscope confirmed the diagnosis suggested in the answer. In the upper half of the fundus the retina was detached by large effusion between it and the choroid. Over the whole yellow-spot-region the retina was in ripples, exactly like a table-cloth not laid smoothly, the effusion being only small in quantity. It is remarkable that it was the *upper* part of the retina which was detached.

ARCHIVES OF SURGERY.

OCTOBER, 1889.

ON THREE FATAL CASES OF GANGRENOUS ULCERATION OF THE ARM AFTER VACCINATION.

THE three cases which I have to place together in the present paper are in their main features closely similar. One of them is from my own practice, and has not previously been made public; a second was published three or four years ago by Mr. Clement Lucas; and the third is one which has been not long ago the subject of a coroner's inquiry at Leeds. The facts of the latter I take in part from the evidence given at the inquest and published in detail in the local papers, and in part from personal inquiry at the Leeds Infirmary. At the latter institution, in August last, Dr. Littlewood, the resident medical officer, was kind enough not only to answer my questions, but to procure for me an opportunity for inspection of the mother of the patient and her other children.

These three cases are alike in the following facts. In each instance the area of skin involved in vaccination inflamed and became gangrenous, forming a large and deep ulcer. In each death followed about two months after the vaccination. In each certain symptoms had occurred which were suggestive of syphilis, whilst in all there were strong negative facts. In all, the child was one of a family, there being older ones who had been vaccinated without detriment and who remained in good health. In all three the child in question was the only one of those vaccinated at the same time and with lymph from

the same source, who suffered anything. In all three, so far as the investigation could be carried, there was reason to believe that the vaccinifer was healthy, and in one of them *the lymph was from a calf.* The three cases are further alike in this, that although in all syphilis was suspected, in not one were the symptoms characteristic or such as to place that diagnosis beyond doubt; on the contrary, all presented features which were very exceptional. I may state at once that I do not feel able to give any confident opinion as to the real nature of the malady in question. No reasonable doubt can be entertained that in each instance the infant's illness and death was a direct result of the vaccination. All three were in fair health when the vaccination was done; and in all, the local condition which ensued was such as to induce very serious constitutional disease. It remains, however, a matter of great difficulty to explain why the vaccination went wrong. I will reserve, however, any further comments to the conclusion of the case narratives.

Case I.

The case which I have first to relate is one concerning which I must carefully conceal all names or facts likely to lead to recognition. It was one involving great responsibility, and in the investigation of which I had the zealous assistance of all who were concerned.

I was requested one day in July of 1887 to go to M—— to see an infant supposed to be suffering from syphilis after vaccination, with a view both to advise as to its treatment and to form an opinion as to the real nature of the disease. The infant had been vaccinated from calf-lymph, and no one doubted that it had previously, and at the time, appeared to be in good health. The vaccination had taken well, and it was not till about the end of a month that the sores, by their inflammation, excited suspicion. Subsequently small sloughs had formed, and these had been followed by phagedæna, which had produced a very large and deep ulcer. A mass of enlarged glands had been present in the armpit. A periosteal swelling had formed on the skull; there had been some sores at the anus and on the scrotum, and finally great improve-

ment had followed the use of specifics. The picture seemed complete, and it seemed almost unreasonable to doubt that the case was syphilis.* Some discrepancies must, however, be observed. The infant had not had any general eruption, and the periosteal nodes had been amongst the earliest symptoms to appear, and had almost wholly disappeared. I may observe at once that if the case were syphilis, all the facts seemed to point to vaccination-infection—rather than to inherited taint. The parents of the infant, both of whom I saw, appeared to be in excellent health; they had not had syphilis, and an elder child, two years old, was in perfect health. No miscarriages had occurred, and this elder child had in infancy been quite free from symptoms, and had gone through her vaccination well. Another very valuable item of evidence in this direction was that there had been an indolent gland-tumour in the armpit. This gland enlargement clearly pointed to primary sores, and not to syphilitic ulceration of a constitutional kind consequent on inherited taint. The dates, too, fitted fairly well with the theory of infection at the time of vaccination. Let me, however, again remind the reader that the lymph used was not human, but from the calf.

Before proceeding to give an arranged narrative of the case, I may conveniently, at this point, say that my first impression was that the case was really one of true vaccinal syphilis, and that we carefully sought in all directions that we

* The following are the memoranda which I wrote out for my own guidance after receiving the first information of the facts of the case :—

On the supposition that the infant has syphilis the dates make it almost certain that it was communicated on the day of vaccination. They would not fit with any later contamination of the sores.

We have to suspect then—

1. That the lymph was not what it professed to be, but from a human subject.
2. That the calf had in some way been contaminated with syphilis.
3. That the glass tubes had got contaminated.
4. That the lancet was not clean.
5. That the surgeon's handkerchief (on which the lancet was wiped just before use) was contaminated.
6. That the bottom of the wineglass upon which the lymph was put was contaminated.
7. All vaccinators who had lymph from the same source ought to be written to.
8. The officers of the Vaccine Institution and the servants in the house of the patient's parents ought to be examined.

could think of for some source of contamination of the lymph or infection of the sores. The dates made it almost certain that the infection, if such occurred, was at the time of vaccination and not subsequently. The gentleman who had supplied the lymph (in tubes) inquired of all the surgeons who had received lymph from him at about the same date, and furnished me with the replies received to his letters. They unanimously reported satisfactory results. Neither this gentleman nor his assistant were themselves suffering from syphilis. The surgeon who did the vaccination was in a select but not extensive practice, having little or nothing to do with the poor, not vaccinating often, and not seeing a case of syphilis, as he said, more than once a year. He was not himself suffering from syphilis. The lancet which he used had been cleaned and sharpened that morning, and was dipped in hot water just before use. The lymph having been before use blown out of the tube on to an upturned wine-glass, I suggested that the butler who brought in the wine-glass should be examined, but neither in him nor in any other of the servants could there be found any reason to suspect syphilis.

There appeared no reason for doubting the *bonâ fides* of the Institution which had supplied the lymph. Its manager assured us that he never kept human lymph, and could not by any possibility have substituted it on this occasion. If asked for human lymph his answer was, he said, always, that he did not keep it, and the vaccinator confirmed him, from his own experience, in the statement that if asked for calf lymph when he had none he always said that he was out of it. The particular calf in this instance was registered, and the distribution of its lymph was known. The lymph had been procured at the Institution and taken direct by the operator to his patient's house. The lancet used had been dipped in hot water and then wiped dry on a clean handkerchief. Thus, on the supposition that no one of those who had been questioned had anything to conceal, we seemed to have almost excluded all possible sources of contamination of the lymph or lancet. I will now proceed to narrate the facts.

The vaccination was on May 26th. On the eighth day, June 2nd, the spots were inspected and found to present normal

but small vesicles. On the fifteenth day the nurse says that she asked Dr. E—— to look at the spots, because, as she says, they were inflamed. Dr. E—— does not remember anything of this, so probably they did not present any unusual features to him.

During the third and fourth weeks no surgeon saw the child, but, according to the nurse's testimony, the spots continued to be somewhat inflamed. The infant was taken out as usual, and at the end of the third week there occurred a possible exposure to the infection of varicella.

On June 24th, the thirtieth day of the vaccination, the real trouble commenced. On this day the infant, who had been taken to the sea-side, was shown to Mr.——, who found the arm much inflamed and swollen. There were two large scabs at the site of the vaccination with much induration beneath and around them. There was a moveable mass of enlarged glands in the armpit, not specially tender; and considerable swellings on the right parietal bone. Three or four spots not unlike varicella had appeared on the scalp, and there were a few small sores on the scrotum, in the groin, and at the anus. The child also had purulent discharge from one ear. On the next day it was noted that it had troublesome sickness and a leaden aspect. Three days later it was worse in all respects, fretful, and losing flesh. Grey powder, in doses of half a grain every night, was ordered. It was not till a week later still that mercury was begun in efficient doses, and in the interval the condition of things had got worse. A grain of grey powder was then ordered twice a day, and, in addition to it, some mercurial inunction was practised. Iodoform was used for the ulcer. Improvement began almost immediately. It was on July 13th, the forty-eighth day, that I first saw the patient. The nodes had, at that time, almost disappeared, the sore was cleaning, and the child, although still pale and feeble, seemed likely to do well. The little sores on its scalp and about the genitals were indefinite, and looked as much like chicken-pox as syphilis. There was no snuffles, and I felt some doubt as to the diagnosis of syphilis. There was nothing that seemed to me conclusive, certainly nothing in the least like a general syphilitic eruption. The otorrhœa

and the appearance of periosteal swelling within one month of the supposed infection impressed me as most unusual, and as being more like some other kind of blood-poisoning than syphilis.*

The date of my visit to the child was July 13th. After that I did not again see it. It was agreed at the consultation, although I held the diagnosis of syphilis to be open to doubt, that it would be wise to continue small doses of mercury. The following notes of the progress of the case were kindly supplied to me by one of the two medical men who were in daily attendance. It will be seen that the child died about one month after my visit, with brain symptoms. In the interval the sore on the arm had healed and all other symptoms had disappeared. The child had improved in health, and was regarded as convalescent at the time that the cerebral symptoms set in.

Notes of the progress of the case after consultation with Mr. Hutchinson on July 13th, until the death of the child, August 16th, by Dr. N—— of M——.

July 31. Improvement continues. Sores about anus healed. Inunction every other day. Otorrhœa has ceased.

* On the evening of my return from the consultation at M—— I wrote out the following statement of facts *pro* and *con* syphilis.

In favour of the diagnosis of Syphilis.

The sores first became seriously inflamed in the fourth week. A surgeon was for the first time asked to see them in the beginning of the fifth.

There was an indolent bubo in the armpit.

The sores sloughed and became phagedænic.

The sores at the anus were said to have been like mucous patches, and those on the scrotum suspicious.

There were nodes on the skull.

Most marked and rapid benefit followed the use of mercury.

There was slight but suspicious snuffles.

Two well-experienced surgeons who have been attending the child are firmly convinced that it is syphilis.

Against the diagnosis of Syphilis.

The child has never had any general eruption.

The sores at the anus and on the genitals appeared as early as the beginning of the fifth week, and so did the largest node.

The snuffles was not well marked.

The vaccination sores not only ulcerated but actually sloughed.

There was otorrhœa.

The few spots that there were on the scalp had not, to my mind, the appearance of syphilis, but rather of varicella.

Nothing that I saw myself was conclusively like syphilis.

August 5. Has vomited once or twice after food and has slight diarrhœa. Appears to be free from pain.

Inunction discontinued. To continue small doses of grey powder and iodide of potassium.

9. Arm quite healed. Has continued vomiting now and again after food, and still has some diarrhœa. A small inflamed nodule about the size of a coffee bean at right margin of anus. Potassium iodide discontinued. Hydrarg. Subchlor. gr. $\frac{1}{8}$ 6 tis horis. Warm fomentations locally.

10. Fluctuation in nodule near anus. Incision and a few drops of sweet-smelling pus evacuated. Child not looking so bright, and, nurse thinks, losing flesh.

12. Is certainly losing flesh, never smiles, but seems free from pain. No rise of temperature. Still diarrhœa, motions watery, not offensive, follow very shortly after ingestion of food.

14. Has emaciated rapidly, temperature continues normal. Very irritable, little if any sleep, crying almost constantly unless lulled. No abdominal distension, no physical signs in lungs.

15. Is pinched and wan in appearance, colour almost leaden. Irritability continues. Vomiting and purging. Inunction again, twice daily. Head moved restlessly on nurse's arm, no sleep, low moaning cry almost constant, never sharp or sudden. No fits. No retraction of head or abdomen. No *tâche cerébrale*. No paralysis. No squint. Knee jerks brisk, possibly exaggerated. Veins of scalp dilated, fontanelle wide, but no bulging. No rigidity of limbs.

16. A few quiet intervals during the night, but no real sleep, tossing head from side to side at times, constant low moaning cry, no fits, but in afternoon convergent squint, lasting for about a minute. Has emaciated with shocking rapidity. Has seemed a little quieter after Pot. Brom. gr. ij., Chlor. Hyd. gr. j., ʒiis horis, but never quiet unless nursed. No return of squint. Vomiting and diarrhœa stopped. Temperature beginning to rise—8 p.m., 100·2; 7 p.m., 100·2; 10 p.m., 101·2. During afternoon has occasionally had spasmodic movements of limbs, but no muscular rigidity or retraction of neck? Epigastrium retracted. Fundus not examined. No loss of consciousness, but has at times lain almost motionless. 10 p.m.—No improvement, pulse has not

been strong enough to count. Died quietly without fit of any kind at 1.20 on the 17th. No autopsy was obtained.

Case II.

Mr. Clement Lucas has recorded in the Guy's Hospital Reports for 1884 a case of which the following is a summary:

A hand-fed and rather delicate child, aged five months, was vaccinated in January (exact date not given). Five vesicles were produced. Three weeks after the vaccination "the skin at the site of the operation turned brown and sloughed." A large thick black slough formed, and the sore surrounding became eventually more than two inches long and an inch and half broad. This slough became partially detached before the child's death, which occurred on March 4th, about two months after the vaccination. The slough was in two portions, as if by the coalescing of two areas. The condition of the arm shortly before death is roughly indicated in the appended wood-cut, copied from Mr. Lucas' lithograph. The autopsy revealed nothing of importance.

There can be little doubt that in this case the child died in direct consequence of local gangrene, which was in its turn a consequence of the vaccination. I will state the evidence as to syphilis under the following heads.

Was syphilitic poison conveyed in the vaccination?—Several other children were vaccinated at the same time from the same source and did well. The condition produced in the child's arm was one of extensive gangrene, and this developed quickly, there being a large slough by the end of the third week. The vaccination sores never took on any condition resembling chancres. No gland enlargment occurred. No symptoms of constitutional syphilis followed. It is to be admitted that extensive gangrene such as occurred here would very probably prevent absorption of the virus, and thus prevent both gland infection and constitutional symptoms. I therefore rest the assertion that it is improbable that any conveyance of syphilitic poison occurred either at the time of vaccination or afterwards, chiefly on the fact that the immediate development of a large slough is an event almost wholly unknown in connection with syphilitic infection. It is to be noted that it was local and limited sloughing, not phagedæna, which occurred, and that it developed much too quickly for the incubation of the syphilitic virus.

Was the child the subject of an inherited taint of syphilis?—On this point there was a certain amount of suspicious evidence. Two children of the same parents, born before this one, were said to have had eruptions on the buttocks in infancy, and one of them had "thrush" and the other possibly had "snuffles." The subject of the case itself had rash on the buttocks, thrush, and snuffles, and was taken to a surgeon, who, it is believed, gave grey powder. Many will doubtless consider such statements as conclusive. Mr. Clement Lucas, however, courageously avows his conviction that they were not, and for myself I think that he displays, in doing so, sound judgment. It is not everything which mothers count as snuffles or thrush which necessarily implies syphilis, and many eruptions on the buttocks of infants are due simply to local irritation. The facts on the other side in the present case were the following: Both parents were in good health, and the father, who had married at 21, denied having ever had any form of venereal disease. None of their children had died. The two elder ones, who were said to have had eruption on the buttocks, had got rid

of it without any special treatment, and the symptoms in both appeared to have been trivial. In the third child (the subject of the case) the infantile eruption had, it is true, required treatment, but it had not affected other parts, and Mr. Lucas, who examined the child, could recognise only eczema intertrigo, and saw nothing indicative of syphilis. That the surgeon consulted had prescribed grey powder must not count for much, since it is with many a remedy for a great variety of infantile complaints. Mr. Lucas concludes his examination of the facts by the statement: "Taking the evidence as a whole I am inclined to doubt the existence of syphilis and to attribute the rashes to the artificial diet and neglect of cleanliness." With this statement of Mr. Lucas' opinion I must leave this part of the case. There is room for doubt, and no approach to certainty is possible.

Case III.

A case which has recently occurred in Leeds affords a very close parallel to the two preceding. The infant died in the thirteenth week after vaccination, with a sloughing and phagedænic sore on the arm, which had almost reached the bone. This case was the subject of an inquest, and a verdict was recorded to the effect that the death was due to syphilis communicated by vaccination. This was the opinion, I believe, of all the medical men who gave evidence, including several of the staff of the Leeds Infirmary. I did not myself ever see the child, but I have read an authentic record of the evidence given, and have received direct from Dr. Littlewood, the resident medical officer of the Infirmary, his statement of the facts. I had also, through Dr. Littlewood's kindness, an opportunity of seeing the mother of the child and her two elder children. The following appears to me a fair statement of the facts of the case. The child was, as in Mr. Lucas' case, the third born, and the two elder were then and are still living. The parents are seemingly healthy, and are in comfortable circumstances, the father being a gamekeeper, near Leeds. There is not the slightest proof of syphilis in either parent. The infant was nearly four months old at the time of the vaccination on March 26, 1888.

No one disputes that at this time it appeared to be in good health. It was nursed at the breast, and continued to be so till a few days before its death. The vaccination was on March 26th. On the sixth day some red inflamed spots had formed. The inflammation about these rapidly developed, some others were formed at their margins, and about a fortnight after the vaccination there were two deep holes and much dusky swelling around them. At the end of a month the child seemed ill, and the arm was inflamed and the ulcers spreading. A little later there was "false membrane on the velum and tonsils" and "aphthæ" in the mouth. Next a small ulcer formed on the upper eyelid of the same side, and subsequently one over the ear.

On June 1st, rather more than two months after the vaccination, the child with its mother was admitted into a ward of the Leeds Infirmary. It had at this time a very large unhealthy ulcer on the upper arm, which had destroyed all the skin of the vaccinated area, and besides this, the two small phagedænic sores, on the eyelid and ear, which have been mentioned. At this time the mouth was well, and Dr. Littlewood assures me that neither at this time, nor afterwards, was there any general eruption. The child was still fairly well nourished. The general impression being that the sores must be syphilitic, the administration of mercury was commenced. Improvement appeared to follow, and the two sores on the eyelid and ear almost healed. That on the arm remained, however, very large and deep. The infant's mouth again became very sore. The mother left the hospital at her own request at the end of three weeks, but returned six days later, with the infant much worse. Its relapse was attended by large abscesses, which had formed very quickly, and over which the skin appeared about to slough. The first abscess was in the right buttock, and another followed over the upper part of sternum. Under the irritation caused by these abscesses the child sank. Death occurred one month after admission at the Infirmary and the beginning of the use of mercury, and a little more than three months after the vaccination. The autopsy showed no internal lesions and no affections of the bones. There was nothing

to indicate syphilis, unless the sore itself, still very large and deep (almost surrounding the arm, and almost exposing the bone), and the two abscesses be so counted.

I will now put respecting this case the same questions as regards possible syphilis which were proposed in the preceding one.

First. *Is it probable that the syphilitic virus was conveyed in vaccination, or that the vaccine sores were subsequently infected by accident?* It seems almost certain that no such conveyance of syphilis occurred, for the vaccine punctures began to inflame within a week; they never developed into chancres, they did not cause gland disease, nor were they followed by a general eruption. Further, the mother continued to suckle the child, and she never contracted sores on her nipples. What happened was not the development of chancres after the proper period of incubation, but the immediate inflammation of the punctures, before vesicles had formed, and their rapid passing into phagedæna. The progress was wholly unlike that of vaccino-syphilis; and as regards any accidental infection afterwards, no time had elapsed sufficient to render this in the least probable. In corroboration of this contention it may be added that careful investigation made it almost certain that the vaccinifer was healthy, and that none of the other children vaccinated from the same supply suffered in any way.

Second. *Was the infant the subject of inherited syphilis?* Here, again, as in Mr. Lucas' case, there is room for difference of opinion. The infant was said to have had snuffles during the early weeks of life. The two elder children were also said to have shown suspicious symptoms, and the teeth of the eldest were thought to be notched. Further, in the same direction of suspicion, though on a wholly different line, we had another statement to consider, for the mother herself was reported to have consulted a surgeon for a sore on her genitals, followed by an eruption, not long before this child was conceived. As I have said, I subsequently saw the mother and the two children myself. I put my own questions, and may now briefly record my conviction that there is no strong reason for believing any one of them to have been subject of

syphilis. The father I did not see, but he was reported to be in good health. The mother denied that she had ever had, as had been reported, a sore on the genitals, or a rash on her body. I could only think it likely, in this conflict of testimony, that the surgeon (who, in the evidence which he gave, spoke from memory) had confused the woman with some other patient. She appeared to me to be in excellent health, which, on the supposition that she has recently had syphilis, is the more remarkable, because she has had no treatment for it. Her two children are well-grown, rosy, and healthy-looking. None of her children have died, and the fact that the subject of the case, although presenting these phagedænic sores, never showed any characteristic eruption, must be allowed some weight in support of the opinion that it was not the subject of an inherited taint. It remained well nourished up to the time of death and never had any snuffles whilst under observation.

Before proceeding to comment on these cases, I will endeavour to state them more explicitly in tabular form.

(The space-for-time method.)

Case I.—Dr. E——'s Patient (my own case).

A healthy child, aged three months, vaccinated with apparent success. Inflammation of the pocks on fourteenth day, and gangrene at end of month, with nodes on the head and some vesications on genitals, &c. Indolent bubo in armpit. Recovery under Mercury. Head symptoms and death in twelfth week after vaccination. No autopsy.

AGE.	DATE.	DETAILS.
	1887 March	Born. Quite healthy.
1 month	April	Quite healthy.
2 months	May	Quite healthy.
3 months	" 26 June	Vaccinated from tubes containing calf-lymph. Good pocks on the eighth day (June 2nd), and no undue inflammation. On thirteenth day (June 7th), the nurse considered the pocks unduly inflamed. They were not inspected after this date. On thirtieth day child ill; much inflammation of arm, with sloughing. "Nodes" on the skull; some spots on scrotum and on scalp; otorrhœa.
4 months	July	The arm much inflamed, and the child ailing. Child looking ill and leaden; sickness; condition of arm worse; large indolent bubo in armpit. On forty-second day, mercurial treatment begun. On 13th, forty-eighth day, Mr. Hutchinson saw patient. Already much benefited by treatment.
5 months	August	All the local symptoms, as well as general health, improved. Head symptoms. Sore on arm healed. Death from Meningitis (?) on August 16th (twelfth week after vaccination).

No autopsy was permitted.

CASE II.—MR. CLEMENT LUCAS' CASE (See Guy's Hospital Reports, 1884.)

A feeble child, aged five months, vaccinated with apparent success. Gangrene of the whole of the involved skin, and death from exhaustion two months later. Autopsy negative.

AGE.	DATE.	DETAILS.
	1882 August	Born on August 10th. Had snuffles at birth. Fed by hand.
1 month	Sept.	A rash on buttocks at three weeks old, and thrush. Was treated, and soon got well.
2 months	Oct.	Hand-fed, and rather feeble.
3 months	Nov.	Vaccinated, but it did not take. Again, a week later, with like result.
4 months	Dec.	Not thriving very well, but not specially ill.
5 months	1883 Jan.	VACCINATED for a third time on the same arm as before. Five vesicles developed. Three weeks after the vaccination the skin had turned brown, and was sloughing.
6 months	Feb.	Under treatment at the Evelina Hospital. On 28th, seen by Mr. Lucas for first time. Emaciated; large slough on arm; no gland disease; no signs of syphilis.
7 months	March	Death on the 4th (about two months after the vaccination).

The autopsy showed no internal lesions whatever. The death was apparently from exhaustion from the gangrenous sore.

Case III.—The Leeds Case.

A child, in fair health, vaccinated at four months. No pocks developed, but spots inflamed on sixth day. Sloughing and Phagedæna. Two small Phagedænic sores on side of head. Apparent improvement under Mercury, but relapse and death with large subcutaneous abscesses, three months after the vaccination. Autopsy negative.

AGE.	DATE.	DETAILS.
	1888 Dec.	Born December 7th. Said to have had some snuffles during first fortnight. None afterwards. At the breast.
	1889 Jan.	Well. At the breast.
	Feb.	Well. At the breast.
	March	Well. At the breast.
	„ 26	Vaccinated from points.
	April	The vaccination never took well; but "red spots" formed on sixth day, and round these others developed.
	„ 15	Skin around vaccination spots dusky, and two deep holes. The surrounding spots coalesced with the original ones.
	May	The child had become somewhat ill, arm much inflamed, false membrane on velum and tonsils, and aphthæ in mouth. Inflammation and small ulcer on upper eyelid.
	June	Admitted on June 1st into Leeds Infirmary, and diagnosed for first time as syphilis. Large and deep phagedænic sore on arm, small phagedænic sores on eyelid and ear. Apparent improvement under Mercury. Sores on ear and eyelid healed, but not that on arm. Mouth and throat again became sore. Large abscesses rapidly formed on buttock.
	July	Died on the 1st, from exhaustion, consequent on the ulceration and abscesses.

eful post-mortem was performed, with quite negative results. The child emaciated even at the time of death.

COMMENTS ON THE THREE CASES.—Although in my introductory statements I admitted that these cases seemed to present almost insuperable difficulties as to diagnosis, I may now avow my own clear belief that not one of them is an instance of vaccination-syphilis. It does not seem at all probable that in any one the poison of syphilis was conveyed in the act of vaccination. With this may also go the further statement that it is not probable that in any of them the vaccination-sores were infected with syphilis at a later period. The evidence in support of these negative propositions is mainly the following:—In none of the cases did chancres develop in the site of the vaccination-sores. In true vaccination-syphilis the pocks usually run their normal course, and only at the end of a month or five weeks, and after healing has occurred, does the inflammation follow which constitutes a chancre. In one of these cases the spots inflamed within the week, and never developed vesicles; in another, the area was involved in gangrene as early as the third week; whilst in the third, the only one in which the dates might fit with infection at the time, the lymph was from the calf.

In only one of the three cases was there any gland enlargement in the armpit, and this one again was precisely the one in which infection was the least likely, as the lymph was not from the human subject.

In no single case was there any history of other patients vaccinated from the same source having suffered, and in none was there any suspicious evidence as regards the vaccinifer.

The cases are remarkably alike as regards the local results, and in one of them the evidence as regards the improbability of any syphilitic virus having been conveyed at the time of vaccination is very strong indeed, the lymph having been taken from the calf, and every possible precaution having been observed.

In no one case did the infant develop a general eruption, such as is usually seen in cases of recently acquired syphilis.

The process of gangrene of the skin which took place at the site of the vaccination punctures is one which, although not unknown in connection with primary syphilitic sores, is still very uncommon.

In one case the fact that the child did not infect its mother's nipple although suckling was continued, makes it probable that the infant was not the subject of an acquired syphilis from which the mother was free. In the other two, as the child was hand-fed, no evidence of this kind was possible.

If, then, we put aside the suspicion that the poison of syphilis was conveyed in the act of vaccination, we have next to ask whether it is probable that the infants were the subjects of inherited taint. I have already in connection with each individual case discussed the evidence on this point, and need not repeat it in detail. No doubt in Cases II. and III. there were some suspicious facts. In Cases I. and III. I myself saw the elder children, and could find in them no indications whatever of taint.

In all three cases the parents denied having ever had syphilis, and nothing was discovered in any one to invalidate the denial. It is, however, not necessary to say that absence of evidence of this kind is very far from being conclusive. It must remain a quite open question as to whether all three children were not the subjects of inherited taint in whom the vaccination set up unhealthy action on account of the existence of such taint. In reference to such a supposition we may remember, however, that children the undoubted subjects of inherited syphilis are vaccinated every day, and go through it without any untoward consequences. Their pocks do not inflame more than in other children. I do not remember ever to have seen an instance of phagedæna or gangrene after vaccination in a syphilitic infant. We have here three cases in which very large sores formed, and death ensued; surely if in all these the one efficient cause was the existence of inherited taint, we ought to encounter a many minor forms of like conditions arising under similar circumstances.*

Lastly, the question has to be entertained whether the cases are examples of syphilis in any form. To many I am aware it will seem undue scepticism to doubt this. When such symptoms as snuffles, thrush, and eruption on the genitals in infancy are

* I may remark that we have not exhausted the evidence on this point in these cases. Facts may transpire in the future which may give us most valuable light. The six parents of the three children are all of them living, and it may happen that one or more of them may in the future develop symptoms making the existence of syphilitic taint certain. In the case of the mother of the Leeds infant, if it be true as suggested, that she had primary syphilis just before its conception, it is very probable indeed that she will show other symptoms, for she has had no specific treatment. Other children may be born whose condition may reveal taint; or, lastly, of the children already existing (older than the subject of these cases), of whom in the three families there are five, some one may have interstitial keratitis, or may cut syphilitic teeth. It will be well worth while to keep the families under observation in reference to these points. For my own part I may confess that the cases are so closely parallel that I should be prepared, were syphilis conclusively proved in any one, to admit it in the others.

mentioned, not a few will hold that the suspicion is rendered very strong, if not actually proven. In the same way nodes on the head, bubo in the armpit, phagedænic sores, abscesses and eruptions on the genitals occurring in connection with a vaccination sore which has gone wrong, will be held by many as conclusive proofs that syphilis has been introduced. I cannot but freely admit that they bring with them much suspicion, and that this suspicion is strengthened by the fact that well-experienced surgeons, who saw these various symptoms and examined them carefully, thought that they could be none other than syphilis. Further, there is the fact that two of the infants were thought to have been much benefited by mercurial treatment.

If in spite of such strong suspicion I venture to avow myself unconvinced, I must in one case seek the support of Mr. Clement Lucas' opinions, who carefully estimated the facts at the time, and saw the patient; and in the other two, allege that the discrepancies were very remarkable. In two of the children careful autopsies were made and nothing suggestive of syphilis found. None of the children had a characteristic eruption, or characteristic marasmus, or a characteristic throat or snuffles. That periosteal nodes should develop within a few weeks of the contagion of syphilis is a most unusual event, and so also is the formation of large acute abscesses such as caused death in the Leeds case.

It will be asked, and reasonably: "If the cases were not syphilis, what were they?" I reply by the suggestion that they may have been the result of idiosyncrasy in reference to the vaccine virus itself. Although rejecting as without probability, and almost absurd, the hypothesis of a recent writer, that the syphilitic virus and the vaccine virus are one and the same, we may yet freely admit a certain quality of relationship which holds for all the specific fevers. They are all occasionally followed by erratic forms of blood-poisoning which bear a certain degree of similarity one to the other. Syphilis is the parent of phagedæna in a large majority of instances, but cancrum oris and noma, forms of spreading gangrene, are usually the sequelæ of measles, and have nothing to do with syphilis. Vaccinia and chicken-pox may each of them assume a gangrenous type, and the latter especially is not unfrequently the cause of multiple abscesses. Acute otitis (which occurred in one of the cases) is very rare as a complication of syphilis, and not so rare after some of the other exanthems. Periostitis is well known to occur after one or other of the exan-

thems as well as after syphilis. Thus necrosis after smallpox and typhoid is not unfrequently seen. Lastly, it may be plausibly urged that mercury benefits almost all types of inflammation as well as the syphilitic ones, and that it may be a specific for all conditions of germ-infection of the blood. We must remember, too, that although alleged to have benefited the two patients in whom it was used, it did not really save either of them; one died within a month of its commencement, the original sore being still unhealed, and large secondary abscesses having formed; and the other got fatal head symptoms just when apparently cured as regards the others.

Although not wishing in the least to express any formed opinion, desiring rather to leave the facts where they are and to wait for future increase of knowledge to help us to their interpretation, I may yet be permitted to say that the cases look to me quite as much like vaccinia as syphilis. Whatever their real nature, it is of course impossible to refuse to recognize them as the direct consequences of vaccination. Any attempt to do this would be to my mind a dishonesty. Nor shall I make any apology for this admission, or for my share in the publication of the facts. The necessity for the practice of vaccination must not be defended by the concealment of occasional ill results, but by the clear enunciation of the undoubted truth that it prevents evils a thousandfold greater than those which it causes.

CANONS IN SURGERY.*

I FEAR that I may seem to have chosen a too high-sounding title. In an art such as that of surgery who shall seek to establish canons? A canon is, I take it, a rule to which all, excepting under circumstances very unusual indeed, shall yield obedience. It will be an evil day for surgery, an art which is continually progressive and which depends for its progress upon the originality and activity of mind of those who practice it, when its disciples shall be trammelled by set rules which they dare not break. We shall but do our duty to the interests of the future if we resist on all occasions the attempt on the part of would-be authorities to impose such laws. We must work with free hands and heads. Our minds must be ever open to receive modifications of opinion from the increase of knowledge. All this and more being fully granted, I still submit that the existence of formulated rules, where such are possible, is of great help to the practitioner. Our profession is in its ramifications so multiform, its details are so complex, and so endless in diversity, that we may well feel thankful to fall back where practicable upon established rule. Especially is this the case respecting unusual forms of accident and disease, which may chance to come under the care of those who have but little personal experience respecting them, and under circumstances which impose the responsibility of prompt action. Who has not rested with confidence upon the established dictum in respect to wounded arteries, that the vessel should invariably be tied above and below the site of wound; or in the case of strangulated hernia, "When in doubt operate"?

* These "Canons in Surgery" are founded upon an address which I delivered under that title before the Nottingham Medico-Chirurgical Society, October 16, 1885, but which I have subsequently modified and enlarged.

In the Choice of Anæsthetics.

Some of us have laboured long to establish a canon in reference to the choice of anæsthetics. We have wished to restrict the use of chloroform and to put ether in its place. The crusade has obtained a partial, but by no means a complete, success. At the present time I do not think that there is any one in London who makes the employment of anæsthetics his special occupation who would think of using chloroform alone in the first instance, unless under exceptional circumstances. Many give a mixture of chloroform with ether, and some finish with chloroform after beginning with ether; but one and all regard the use of chloroform at first and alone as dangerous. In the provinces chloroform is still largely used, so also even in London by non-specialist practitioners; whilst throughout Scotland, I believe, a sentiment of pity almost bordering on contempt is felt for the craven Southerners who dare not use the stronger drug. We are looked down upon in reference to chloroform now much as we once were as to whisky. It is thought to be too strong for us. Since ether came into large use in England a few deaths have undoubtedly occurred in connection with it, and these have had a share in hindering its general acceptance. I do not believe, however, that this has been the chief influence at work. The superior attractiveness of chloroform, its smallness of compass, its cheapness, the ease and certainty of its administration, have been the reasons for its continued supremacy. Those who use anæsthetics but little find it to all appearance perfectly safe. It is only those of unusually large experience, who have had deaths, or cases which approached near to death, who have become timorous. We all naturally trust most to our personal experience, and it is a rare quality of mind to be able to allow facts collected by others to overrule the impressions derived from what has happened under our own eyes. The man who for twenty years has given chloroform, once a week, and never come near a mishap, finds it hard to believe that, when such occur, they are other than the results of want of skill. Yet those who trust statistics know that such an one has only to go on long enough and his turn will certainly come. For him indeed

the story might be inverted which tells that a surgeon, wishing to reassure his patient, made him a positive promise of recovery from an operative procedure which was fatal to ninety-nine out of a hundred. "For," said he, "I have had my ninety-nine deaths, and you are my hundredth case, and sure to do well." Had I had five thousand successes with chloroform I should feel very uneasy indeed as to the near future, and should regard it as certain that the chance which has happened to so many must be mine before long, and if mine then my patient's, which is still more to the point. The deaths from chloroform are still very numerous. They occur to the careful as well as to the careless, and to the healthy patient far oftener than to the feeble. No one can foresee them, and the rosy-cheeked schoolboy, who lies down to have his squint put straight, is probably in greater danger than the feeble old man, whose limb is about to be amputated for senile gangrene. I speak from a tolerably extensive observation, both of my own facts and of those of others, when I say again, what I have often said before, that I think that we ought to have a clear canon in full force on this most important subject. I have not the slightest misgiving in my belief that the re striction of chloroform would save many lives every year. At any rate, let us make it a rule never to give chloroform until the blood has been first well dosed with ether. The dreaded syncope of the heart is proved by experience to be of very rare occurrence indeed if the patient be under the influence of alcohol, opium, or ether. If only it were widely known how easy the administration of ether really is, and if only all complicated forms of apparatus were, excepting by specialists, wholly laid aside, I feel convinced that its use would become both universal and uniformly safe. When deaths occur it is almost invariably the fault of too elaborate apparatus.

The Canon I would venture to suggest is this: *Never give Chloroform alone in the first instance; let it be either preceded by ether or in mixture with it.*

On Excision after Injuries to the Eyeball.

A department of practice in which it is very desirable that rules should exist and should be widely known, is that which

concerns injuries to the eyeball. The dangers of secondary inflammation of the sound eye are well known to be exceedingly great. Yet for various reasons it very frequently happens that the removal of an eye which has been irreparably damaged has been deferred until too late, and that both are lost. I take it to be the rule among surgeons in this department, and a rule which has no exceptions, that when an eyeball is so damaged by a wound that it can never again be useful for vision, it ought to be immediately excised. It is unfortunately often exceedingly difficult to say whether the damage is such as to prevent all hope of recovery of the organ, and hence other rules much less definite and positive than that mentioned have to be laid down. If the region involves the ciliary region it is well known that the danger is much greater, whilst if it have been wholly in the cornea, or well behind in the sclerotic, it is comparatively little. Probably I should not be far wrong if I were to say that almost all wounds of the ciliary region involving the lens, or attended with the escape of vitreous, are to be looked upon as justifying excision of the eye. In very few of such, although the eye may be saved, does it ever become of much real use to its possessor; and in most, although it may not produce disfigurement or secondary inflammation of the other, it remains ever after somewhat irritable and troublesome. In cases in which foreign bodies, portions of gun-caps, shot, &c., have passed into the eyeball, and have remained inaccessible, it is again somewhat difficult to decide upon the line of practice. The eye in such cases may often retain a fair amount of sight; and may be quite free from pain. There is also, provided the ciliary region have escaped, comparatively little danger of severe ophthalmitis in the other eye. In spite, however, of the fact that in a few isolated cases eyes containing foreign bodies have been preserved for many years, and have enjoyed some sight, I suspect that the rule for excision would be a safe and wise one as regards average results; in almost all some inconvenience results, and very often some serious damage to the other eye.

The Treatment of Compound Dislocations.

The treatment of compound dislocations has been wonderfully successful of late years, and that too even in reference to the largest and most important joints. It is not so long since a canon of surgery was well-nigh established; "that a compound dislocation of the ankle-joint ought to be treated by an immediate amputation of the limb." I remember seeing it done when a student in one of our London hospitals in the case of a young and healthy man, and one, too, in which no complication existed. Permit me to relate a case illustrating the modern rule that all such cases are to be treated without sacrifice of the limb. Two plans of treatment are at present in use with this object. The one which consists in the exclusion or destruction of germs (the antiseptic); and the one which, by the systematic use of cold aims at preventing inflammation (the antiphlogistic plan). I will say nothing now of the Listerian or antiseptic method of dressing, further than that in reference to compound dislocations only, it may probably count by thousands the number of limbs that have been saved. My own experience, both in hospital and private practice, has led me to prefer, as being more certain in its results, a modification of what may be called the antiphlogistic plan. With it I have treated many cases of compound dislocation, usually with fracture, into the elbow, ankle, and knee, not to mention smaller joints. The case which I am about to narrate shall be only a fair specimen of results. I was called one summer evening some years ago to see a medical man, who resided about eight miles from my house, and who had been thrown from his horse. Two or three hours had elapsed between the time of the accident and my getting to him. During the whole of this period his astragalus, the under surface of which was completely extruded from the wound, had been exposed to the air. The case was one of compound dislocation of the rest of the tarsus from the astragalus with a large laceration on the inner side of the ankle. Having had the foot washed, and the bones sponged with spirits of wine and water, I succeeded, under the influence of an anæsthetic, in putting the parts into place. The limb was then placed on a back splint and wrapped from the toes

upwards, with strips of lint, soaked in spirits of wine and lead lotion. A nurse was deputed to the duty, unintermitting night and day, of keeping the lint constantly wet. My directions were that the skin of the limb was not to be allowed to become warm, and that if the slightest approach to warmth of limb was noticed more spirit was to be added to the lotion. Large gallon bottles of the lotion were supplied, and the nurse instructed to pour it on as if it were water. Its strength was one of spirit to three of water. The result was that the ankle never inflamed in the least, that the wound healed without secretion, and that the patient was walking about—I believe I may almost say riding—at the end of six weeks. By the use of spirits of wine in this manner I believe that the surgeon has the development of inflammation in an injured joint absolutely under his own control. By sedulous night and day attention to keeping the part cold for a week all risk may be avoided. Many successes have of course attended the use of cold by other methods—the ice-bladder, for instance; but I am sure that none are so convenient or so trustworthy as the plan which I have described. Not only is it useful for compound dislocations, it is far the best for compound fractures also; though in the latter, where there is much injury to soft parts, it is necessary to use a little caution lest gangrene be induced. I have, I fear, wandered a little from the immediate matter in hand, which was to assert that the present surgical canon is to save the limb in all cases of compound dislocation or compound fracture into joints unless they be attended by exceptional complications.

Early Operations in Cancer.

We may take it, I think, as a canon in surgery, which has gained much increase in authority recently, that malignant growths of all kinds and in all accessible situations ought to be freely removed by excision or amputation of the part concerned. We have of late years appreciated more and more clearly the fact that cancer often, or indeed, usually is, during its early stage, a modification of tissue growth which is confined to the part in which it begins. We recognize more and more definitely that the explanation

of our disappointments in the past was to be found in the fact that we did not operate early enough nor freely enough. It used to be the practice to wait timorously until the diagnosis was beyond all doubt, or, in other words, until the disease had assumed such dimensions that anything like a real extirpation was almost impossible. Nothing could better illustrate this remark than the fact that we were taught that one of the differential symptoms by which to diagnose a malignant growth was enlargement of lymphatic glands. Even in one of the surgical works, at present much in the hands of students, it is stated as a means of diagnosis between cancer and syphilis of the tongue, that in the former the lymphatics are enlarged, and in the latter not. Can anything be more obvious than that to teach the practitioner to wait until enlargement of glands makes the diagnosis easy, is to teach him to delay until a permanent cure by an operation is impossible? Our modern rule ought to be, and with most surgeons, I think it certainly is, that whenever there is doubt after the usual means of diagnosis have been exhausted, an operation ought to be at once performed. If the operation would be a severe or a mutilating one, an exploratory incision may usually be so made as to remove all doubt before proceeding with it. In cases where the part to be removed is of no value, and the operation in itself a slight affair, it is not wise to be too particular as to diagnosis. This remark especially applies to the removal of ulcers, suspected to be malignant on the skin, the lips, and the tongue. If a patient who has reached the age at which cancerous action is common become the subject of local changes which are in the least suspicious, the surgeon is quite justified, nay, it may be said to have become his duty, to perform what we may call an anticipatory operation. That local inflammations often precede cancerous action, is now a well-recognized pathological fact, and it is far better to operate in the pre-cancerous stage than to wait until the disease is developed.

The remarks which I have just made apply to cancer in general, but certain special rules may be laid down in reference to particular organs. In the case of the eye, it

is not infrequently impossible to say whether or not a new growth is developed behind a detachment of the retina, which is easily recognized by the ophthalmoscope. In all cases in which there is doubt, certainly the eyeball ought to be excised at once. The older writers on ophthalmic surgery were very despairing as to the results of removal of the eyeball for melanosis, and several of them declared that the disease invariably returned with great rapidity. We must remember, however, that their recognition of the growth was seldom made until it fungated through the tunics of the eyeball, and often not until the patient had been many months blind. Now we are usually enabled if not to make a diagnosis, at any rate, to entertain a very strong suspicion within a short period of the first imperfection of sight and while the growth from the choroid is still very small. My own experience of the removal of eyes for melanotic sarcoma in this early stage has been most satisfactory. The adoption of the rule suggested will no doubt lead not very infrequently, especially in children, to the excision of eyes in which no new growth is present, but inasmuch as in all such the organ was already lost, there will usually be no reason for regretting the measure.

In the case of malignant tumours of the testicle, valuable time is almost constantly lost on account of the uncertainty of the diagnosis in the early stage and the great value which is attached to the organ. It would be greatly for the good of our patients, if a rule could be established that all really suspicious tumours of the testicle ought, without any delay, to be explored under an anæsthetic, by a free incision.

It is in the case of tumours of the breast, that the canon of surgery, which enjoins the earliest possible operative interference is most frequently disregarded. That it should be so is yet the more to be regretted, because a premature or mistaken operation is seldom or never productive of any ill consequences. The removal of the mammary gland has become such a simple and almost painless procedure, that its occasional performance when not absolutely necessary, need cause the operator no serious chagrin. If, however, the precaution be adopted of making an exploratory incision

into all tumours concerning which there is the slightest doubt, it will be very seldom that a mistake can occur. I grant that there will be a few cases in which even an incision will not make the diagnosis certain, but in all such, it is surely better to err on the safe side and to remove the suspected structures. The cases which will give the most trouble in diagnosis, are those in which numerous small cysts are formed with induration of the tissue around. But these are probably examples of a condition upon which cancer not unfrequently supervenes. A middle-aged patient with a breast, in which many small cysts have developed, will be in a far safer condition without the gland.

I suppose that it may be taken as an established rule that, when an operation is performed on the female breast for cancer, or suspected cancer, the whole of the gland should be scrupulously removed. It was not so five-and-twenty years ago, and partial and inadequate operations had no doubt much to do with the disrepute which attached to surgical interference for this malady. More important even than the removal of the whole breast instead of a part, is the canon which enjoins the extirpation of the axillary glands. We do not now try to make believe that a slight enlargement of these structures may be only due to "irritation," and therefore, likely to subside on the removal of the primary disease. Without the slightest hesitation we proceed to the extirpation of all glands that are enlarged, and are very careful to take away every gland that can be found. A patient, in whom the axillary glands as well as the breast have been removed, has certainly a double chance of remaining well. I have for long, myself, adopted the plan of always removing the glands when they can be felt. But I have only recently adopted the excellent recommendation of Kocher that, in all cases of removal of the breast for cancer, the axilla should be cleared whether the glands can be felt or not. It is a recommendation which is, I feel sure, based on common sense and sound pathology. And it will be, I cannot doubt, the means of greatly increasing the average prolongation of life after these operations. There are, unfortunately, but few other regions besides the axilla, in which it is practicable to effect the

anticipatory excision of lymphatic glands. In the case of the tongue and the mouth in general, we cannot feel certain as to which glands are likely to be affected, and some of them are too deeply placed, to be easily reached. We may expect, however, I feel sure, that the surgery of the future will develop in this direction; and that as bolder operations are done now than our forefathers attempted, so shall we in our time be excelled by those who follow us. The patient's natural anxiety that as little should be cut away as possible will be more resolutely put aside, under the clear conviction that the one hope of permanent success rests in the most liberal removal of the tumour itself, of the adjacent structures, and of the proximal lymphatic glands.

(*To be continued.*)

ON SOME MIXED FORMS OF ECZEMA (HYBRIDS WITH ERYSIPELAS URTICARIA, &c.).

UNDER the name Erysipelas-Eczema I class cases in which not only the external phenomena, but the essential natures of the two maladies, are blended. It is of the essential nature of erysipelas-inflammation to develop rapidly, to be attended by great œdema, and to subside almost as rapidly as it began, with a varying tendency to spread at the edges. I am for the present speaking rather of erysipelas of the face than of traumatic erysipelas. To erysipelas of the face patients are often liable over and over again, the attacks recurring under the slightest provocation. As a rule the first attack is always the most severe one. Very often, after repeated attacks, some degree of permanent œdema is left.

Eczema differs essentially from erysipelas in the fact that it usually develops gradually, spreads slowly, and, so far from showing any tendency to spontaneous subsidence, becomes worse and worse the longer it lasts. As a rule it requires treatment for its cure. It is an affection of the superficial parts of the skin, and is not usually attended by much œdema of the cellular tissue. As in erysipelas, so in eczema, those who have had one attack are liable to others.

These remarks will suitably introduce the discussion as to whether there are cases in which the phenomena peculiar to these two specialized types of the inflammatory process in the skin—dermatitis, in fact—are so inextricably blended, that we are compelled to give a double name, being quite unable to place them definitely in one or the other category.

I will relate a case in illustration. Mr. J——, a very healthy old gentleman, aged 69, consulted me on account of the third attack, within four months, of acute swelling of his eyelids and whole face. He had a house at the seaside to which he was

accustomed to go at the end of every week, and it was after exposure to a cold wind there that his first attack occurred. On this occasion his eyelids swelled up till he could not see, and when he got them open enough to look in the glass his face reminded him, he said, of a cartoon he had seen representing a pugilist "after the fight." The attack was not attended by any material fever. When it subsided his skin peeled, but it remained somewhat red. A month later another attack occurred, and a month later still a third. These were milder than the first. For the remains of the last he came to me; but little of the eczematous condition was then present, and it was chiefly seen on his upper lip and forehead. His upper lip was thickened, and the skin generally was rough and reddened.

Some important facts in this patient's previous history are the following:—Fifteen years ago he had been brought to me for severe eczema affecting his legs. He had been cured by tar washes, but had several times since had slight threatenings of return. About twenty years ago he had been through a severe attack of ordinary erysipelas of the face and head, for which he was confined to his bed some days. His father had been liable to erysipelas. In this instance, up to the date of my notes the admixture of persisting eczema of the face was much less than in some of the cases which are to follow. The attacks were mainly erysipelas. They differed, however, from ordinary erysipelas of the face in their more brief duration, the comparative absence of fever, and their strict limitation to the face.

A good example of erysipelas-eczema occurred in the person of a young man named H——. He was under my care in August, 1880, and again in June, 1884. On each of these occasions, as well as on several intervening ones, he had had his eyes quite closed by swelling, and had been obliged to keep his bed. And on every occasion the disease had subsided rapidly from his face, with general peeling of epidermis, and without leaving behind it the slightest trace of eczematous thickening or irritation. Yet during both the severe attacks which I witnessed he had a copious lichen eczema on his limbs which looked exceedingly like a severe attack of scabies.

On his hands, between his fingers, vesicles and little bullæ had formed: some exactly like those of scabies, others of the sago-grain character, and reminding one of cheiropompholyx. Yet let me beg the reader to note that all these conditions, although by no means so transitory as what he called the erysipelas of his face, were, in reality, of limited duration, and passed away to some extent spontaneously, and with a completeness of degree which it is not often easy to obtain in common eczema. Thus he is able to count in the four years four severe attacks and a number of minor ones—he thinks one every spring and autumn—and in the interval of these his skin, he assures me, has been absolutely well. His father has suffered almost continuously for ten years from eczematous affections, which get nearly well, but never wholly leave him.

The last attack which Mr. H—— has experienced brought him to me on June 9, 1884. He had been in bed for a fortnight with it. It had begun just a fortnight ago, when, one hot day, he was on a visit to the Health Exhibition, and was exposed both to sun and draughts. He felt his forehead begin to tingle and prick, went home, and had his face swell up very rapidly until he could not see out of his eyes. All this had passed quite away when I saw him a fortnight later, and his face was pale, but covered with branny desquamation.

During the attack he had not, he said, been at all feverish, but felt well and could eat his food. Very soon after the beginning of the swelling on his face his hands began to prick and tingle, and vesicles appeared between his fingers. There was great peeling of the epidermis in these positions when I saw him, and still some deep sago-grain-like spots in the palms of his hands. His arms, neck, thighs, legs, &c., were covered by a most copious eruption of scattered vesicles and little pustules with much erythema about them, but nowhere arranged in patches, and which looked exceedingly like a much-inflamed case of scabies. There were, however, no burrows, and the spots were not anywhere arranged in lines.

He told me that on the first occasion when I saw him I had thought that there was some scabies mixed with his eruption, and had advised the application of the Peruvian balsam to his

hands and arms, and that the use of this at once caused the parts to swell enormously, and brought on what he called erysipelas. On this occasion he was two months in bed with "eczema," and finally recovered under treatment by the persevering use of weak lotions of tar.

This was the first attack which he had ever had in his life, with the exception, he believes, that when a boy he once got erysipelas of the face from coming out of a hot theatre. Whether or not he had scabies in the beginning it is impossible to say. It may easily be the fact that scabies did really start his eruption and make his skin irritable, and that this irritability was increased by the use of the balsam.

On the other hand, looking at the present characters of the eruption, I am quite willing to admit that I may, in a hurried examination, have given an erroneous opinion.

Be that as it may, we have, I think, a good example of a disease of the skin, which is allied on the one hand to erysipelas, and on the other to eczema, assuming on the limbs the character of the latter disease, and on the face those of the former, almost spontaneous in origin, and with a decided tendency to spontaneous decline, often blazing up into a sudden acuteness of severity which we do not witness in any of the ordinary forms of eczema.

I have only further to add that although the patient's father suffers from eczema, none of his nine brothers and sisters have had any skin disease whatever.

The patient is a city clerk, aged 36, single, and in what he considers the enjoyment of good health. He is of dark complexion and sallow.

Repeated attacks of Erysipelas-Eczema, affecting the hands and face; Rigors and high temperatures.

One of the most instructive cases of eczema-erysipelas which I have seen is also one of the most recent. Miss C——, a lady of about 33, was brought to me a few months ago, with the statement that she had suffered from eczema for almost a year, and that it had begun in "a sort of pemphigus." It had been throughout wholly restricted to her face and hands. She had recently recovered from an

attack, and her hands and face were still vividly red and somewhat excoriated, the epidermis having peeled. Her finger-tips especially were sore. The lower parts of the forearms were somewhat swollen, but only from proximity; they were not involved in the congestion. The face, the whole forehead, and the ears were involved, but not the scalp or neck. I found that Miss C—— counted during the year six or seven "attacks." They usually began by burning and tingling of the hands, and then almost immediately the face would swell. The attacks were almost always ushered in by a rigor, and her feet always became very cold. On several occasions high temperatures had been noted—once 101, and once 103·8. In the attack when the temperatures were highest there was for a short time a small quantity of albumen in the urine. She could never trace any special cause for the attacks, excepting as regards one, that it seemed to follow fatigue in garden work. The first attack was called erysipelas, and was attended by bullæ on the hands, which latter she described as beginning like sago-grains. The attacks were always very sudden. They had been so frequent that her skin seldom got quite sound in the intervals, but remained in a red peeling condition like chronic eczema. The first attack was in the end of June, 1888, when the weather was by no means very hot. Miss C—— had always enjoyed good health, never having had any serious illness. She remembered that twenty years ago she had a curious eruption on her face, which was attended by little blisters, and was, she thought, called erysipelas. Her recent attacks were always followed by great weakness for a time. Arsenic had been given until the eyes were red, but it did nothing as regards preventing the attacks.

This case differs from most in my series in its more definite alliance with erysipelas, and in the occurrence of rigors with high temperatures. Yet it will be observed that the inflammation did not spread indefinitely, and that each attack was a repetition of those which preceded it. The invariable affection of the hands as well as the face puts the case at a distance from common recurring erysipelas of the latter.

I felt the greatest possible difficulty in devising measures for Miss C——'s cure. She had already taken all usual precautions, and there was little or nothing to be discovered as to the exciting causes. I advised her to take tonics, and in the most systematic manner to shield the parts from exposure to wind, sun, or fire.

Case of Eczema-Erysipelas from exposure to sun.

Miss P——, a lady aged 53, consulted me on account of diffuse severe eczema, which affected only the exposed parts—the face, neck, hands, and forearms. It was declining, but still far from well, and she looked as if she had been lightly scalded. There was a history of liability to eczema in several of her relatives and also of gout. The interest of her case in reference to the present topic concerns the outbreak of the eruption. She was at the time staying in Switzerland, 5,000 feet above the sea level, was eating much fruit, and was much exposed to sun. Suddenly her face and hands inflamed, with intense burning. Her whole face became greatly swollen. At first it was thought to be erysipelas, but ultimately her medical attendant said it was not. She was confined to the house ten days, and for a month afterwards could scarcely sleep. She said that she felt as if her whole skin had been baked.

Erysipelas-Eczema from local irritation; A very acute attack; History of a former one in the same patient.

What we witness in cases of personal idiosyncrasy in reference to arnica, we may make use of to elucidate other cases in which the cause is less evident. In some persons sea-air or a draught of cold air may produce effects precisely parallel to those which follow the irritation of that special drug.

I saw with Dr. Worley, late one evening in May, 1886, a remarkable case, illustrating the mixing of the phenomena of acute erysipelas and eczema. The patient was a lady of about 25, florid and stout, and accustomed, I believe, to a rather liberal regimen. She was in bed, with her eyelids swollen level with her nose. Her forehead, cheeks, and neck

were also swollen and red, and the inflammation was steadily advancing down the right side of the latter. She was ill, and her relatives were in a state of great anxiety about her. Although, as I have said, the redness was advancing down the neck, and attended with great œdema, yet it had not exactly the characters of typical erysipelas. Its border was not well defined, but was broken somewhat irregularly into patches. The whole of the red surface of the cheek, eyelids, and forehead was in a condition of weeping eczema. On the forehead again the line of demarcation was not so abrupt as in well-marked cases of erysipelas. So far as appearances went, I should have been equally justified in naming it Erysipelatous Eczema or Eczematous Erysipelas. In seeking diagnostic help from the history and general symptoms I have to note that the patient's fever was not in proportion to the extent of surface involved. Although the pulse was quick, 120, the temperature had never been more than 100°. The patient had complained that she was not allowed as much food as she liked. The attack had followed an injury to the forehead, a slight blow from striking against a piece of furniture. For this a lotion containing lead and arnica was applied, and the erysipelas at once blazed up. It was on Saturday that the injury was received, and the condition which I have just described was that present on the Tuesday following—thus the development had been very rapid. Whether the arnica had produced it or not, it was difficult to say, but I cannot help suspecting that it had taken a large share. There was, however, considerable swelling before the lotion was prescribed—that is, within twelve hours of the injury. I must now give another fact which will perhaps help us to the real interpretation of the symptoms. This was not the first time that I had seen Miss E——. She had been sent to my house about two years before on account of an acute eczema of one leg which had followed the application of iodine for swollen knee. Of this she was cured after a time.

(*To be continued.*)

RECORDS OF INTESTINAL OBSTRUCTION, WITH ESPECIAL REFERENCE TO SYMPTOMS AND TREATMENT.

(*Continued from page* 20.)

In what I have said in the former part of this paper (see Archives, Part I.), I have contended for a few simple propositions as guides to our practice. The first, and perhaps the most important, is that the diagnosis of the nature of abdominal obstruction must in a large majority of cases remain very obscure, and that it is a serious clinical error to teach that acute obstruction, of a hopeless nature without operation, can in any case be recognized early. I have denied that there is any symptom, or group of symptoms, which can justify anything approaching to a confident opinion that the case may not do quite well without an operation. My argument has been that in a large majority of cases, of uncertain diagnosis as to cause, however severe the symptoms in the early stage, recovery may yet be hoped for. This assertion, if supported by evidence, strikes at the very basis of the recommendations of those who insist on early operations. Some evidence of this kind I have already produced, and I now purpose to produce more. Before doing so it may, however, be convenient to recapitulate a little further, and to say that I have urged that in all cases of obstruction an examination under an anæsthetic ought to be made early, and at the same time a systematic attempt at abdominal taxis.* I have urged that this is very desirable as an aid to diagnosis, and further, that it will often be successful as a measure of treatment. I have referred to facts tending to support the conclusion that abdominal taxis

* For details see Archives, page 6.

without operation is often really effectual in replacing bowel which has been strangulated by a diverticulum or band, or twisted; in fact, that it is applicable to precisely that class of cases which some authors seem to think capable of relief only by operation. I have fully recognized the propriety of exploratory laparotomy in cases in which the symptoms have persisted after one or more persevering attempts at taxis under anæsthetics, although even here I may confess to serious misgiving that operations will not, on the whole, tend to reduce the mortality. On this point the reader must, however, judge of the facts for himself.

CASE X.—About two years ago I was called to Winchester in haste, by a telegram which asked me to come prepared to open the abdomen. I met in consultation two very able and careful surgeons, Dr. England and the late Mr. Richards, by whom the case had been already investigated and treated with the utmost judgment. The following is a statement of the facts which I wrote out on my return home:—

"The patient was a young gentleman of about 22, who had recently recovered from a very mild attack of scarlet fever. Our consultation took place on a Monday afternoon, the illness having commenced on the previous Thursday. Pain in the abdomen had set in whilst he was out walking. It had no very great severity at first, but caused him to go home at once, and in the course of the evening increased much, and was followed by vomiting. He was seen that evening by Dr. England, and an opiate and fomentations ordered. From that time onward he continued to be sick, and to suffer much pain. Enemata were repeatedly given, and some small masses of feces were brought away, but no flatus. Excepting under the influence of opium he never slept. He generally bore the application of the hand to the abdomen pretty well, and Dr. England and Mr. Richards agreed that there had been no marked tenderness. The patient himself told me that he had often rubbed the abdomen to relieve the pain. On the morning before my visit, after an enema, he had been up upon the stool, and he said he had felt less pain sitting up than when in bed. He voided nothing. These statements seemed strongly against

the idea of peritonitis. On the other hand, the abdomen had become somewhat hard, the patient lay in bed with his knees drawn up, and he certainly did complain of tenderness if at all firmly pressed. His skin was hot, and his pulse, although not more than 94, was sharp and irritable. His tongue was much furred in the centre, and inclined to dry. His cheeks were sunken, and his aspect very anxious. The whole abdomen was tympanitic, and the stomach especially was much distended. He had been put under the influence of an anæsthetic a few hours before our consultation. Mr. Richards told me that, owing to the tense state of the abdominal wall, he had not been able to manipulate much, but he had done as much as he could. The temperature on the second day had been up to 100, but since then had never been more than normal. The treatment had been, as if for obstruction, by enemata, opium, and belladonna.

"I felt considerable difficulty in the diagnosis, and was by no means sure that we had not to deal with peritonitis. In consequence of the uncertainty, however, we again put him under the influence of ether, and I then manipulated the abdomen freely, and we also administered an enema, with the trunk inverted, and did as much as we dared in the way of shaking whilst in that position. After our procedures a considerable quantity of flatus escaped, and some small portions of feces."

We had in a long consultation carefully considered the propriety of an exploratory laparotomy, and had decided against it. The young man was in a most critical state, and when I left him, although somewhat encouraged by the escape of flatus, I scarcely ventured to think that we had really relieved the obstruction, and had but very faint hopes of recovery. The case was one in which any sanguine advocate of laparotomy, whether for internal strangulation or for peritonitis, would not have hesitated for a moment as to performing it, for the diagnosis certainly implied one or the other, and possibly both. Nothing but my experience as to the uncertainty of such cases, and the not unfrequent recovery of apparently hopeless ones, led me to venture to decline it. The result justified my hesitation. A few days

after my visit to Winchester I had the pleasure of hearing from Mr. Richards that on the evening after our manipulation the bowels had acted freely, and that the progress had since been steady. I have recently learned (July, 1889) that the patient never experienced any relapse, and is at present (two years later) in good health.

The sequel makes it certain that the case was not one of peritonitis, but of obstruction, and having regard to the age of the patient, and the suddenness and severity of the symptoms, it is certain that the cause of obstruction was some definite mechanical constriction. It was no case of mere blocking, nor is it in the least probable that it was gall-stone plugging. The prompt action of the bowels after the manipulation, inversion, &c., makes it highly probable that these measures did really effect a replacement of the portion of bowel involved.

We may, perhaps, not unfairly compare with such cases as the above (of which I have several more to give) certain others in which recovery has followed after operation.

Case XI.—A case which is recorded by Mr. Clutton in the Clinical Society's Transactions is of great interest in several aspects. It is, I believe, the first English case in which recovery after the successful division of a diverticulum has taken place. It illustrates also, I think conclusively, what I have asserted as to the possible replacement of bowel so strangulated, for the boy had had several previous attacks, one of them having lasted three days, and having ended suddenly after the use of an enema. On the last occasion the symptoms had set in suddenly, and with violence, but the boy had been able to take a long railway journey on the fourth day, and he subsequently bore a removal from his home to St. Thomas's Hospital. His vomiting, which was at first severe, had almost ceased, and the ejected matters were not offensive. I mention these facts to show that the symptoms caused by internal strangulation are not always persistently severe. Mr. Clutton operated on the fourth day. The band was easily found and divided. The boy's recovery, although finally good, would appear not to have been without its

dangers, for sickness, with some abdominal tenderness, is stated to have continued for two days afterwards.

The advocates of laparotomy will of course claim such a case as this as a triumph, and allege that without an operation recovery would have been hopeless. It may be asked, however, whether this conclusion is quite justified. In my own case the urgency of the symptoms was far greater than in Mr. Clutton's, for no one could have thought of letting the patient take a journey. The symptoms had been of about the same duration, and were each day increasing in severity. If the diagnosis of acute abdominal obstruction was justified in the one it certainly was so also in the other, and the prognosis was much more grave in the case in which the operation was avoided than it was in the other. I will relate next another case in which the patient was a lad of about the same age as Mr. Clutton's patient, and the course of the symptoms up to a parallel period were very similar.

Case XII.—One Saturday morning in March, 1881, I was called by telegram to Uppingham School. The message informed me that the case was one of severe obstruction, and that an operation would be necessary. I was to meet Dr. Child, the medical officer of the school, and my valued friend, Dr. Newman, surgeon to the Stamford Hospital, who was attending as consultant. When I got there I found a plentiful provision of carbolic acid solution, spray producers, and all the necessaries for a complete antiseptic operation. Our patient was a boy aged 13, who had previously enjoyed good health. He was in the eleventh day of complete obstipation, and was very ill indeed. Enemata, belladonna, and various other measures, had been perseveringly used without avail, and in the judgment of my friends the time had come for operative interference.

The history given me was that the attack had begun suddenly with severe pain, in the middle of the night, and that pain, vomiting, and constipation, had persisted ever since. Anæsthetics had been given on several occasions with a view to the more efficient use of enemata. Throughout there had been no rise of temperature, and no signs of peritonitis. The boy had often begged his nurses to rub his

abdomen to ease the pain. The matters vomited were stated to have been fecal in smell and appearance. I found the abdomen greatly distended, and everywhere tympanitic, but it was not hard nor tender. The coils of intestines could be seen distinctly through the abdominal wall. The lad had emaciated, and his countenance was very anxious. He had never had any similar attack, but there was a history that one of his aunts had once had a fortnight's obstruction, and that after her life had been quite despaired of the bowels had acted and she had recovered.

Our first measure was to give an anæsthetic, and when the boy was under it I made a detailed examination of the abdomen, but without detecting anything which threw light on the diagnosis. We next inverted the body, kneaded the abdomen, and administered enemata both in the recumbent and inverted positions. Nothing was attained by these procedures, and we retired to discuss the question of an exploratory laparotomy. The parents of the boy, remembering what had happened in his aunt's case, although willing to be guided by our advice, were strongly in favour of waiting. Our diagnosis was definite that the obstruction was mechanical, and our prognosis was very unhopeful. So great, however, was the distension of the abdominal parieties from tympanitis that I felt sure that if once the contents were allowed to escape I should never get them in again; and I entertained then, as I still do, a dread of having to puncture intestine. Having succeeded in persuading my coadjutors to accede to my cowardly view of our duty, we carefully explained the dangers to the parents, and decided to trust to a continuance of measures similar to those previously adopted. The only addition was the use of Epsom salts in small, but frequently repeated, doses, with the hope of liquifying the feces above the seat of obstruction.

The sequel of the case may be very briefly told. The boy remained for several days longer very ill, and without action of the bowels. The Epsom salts increased his sickness, and had to be suspended from time to time. Eventually, however, the bowels acted, and a steady recovery followed. The lad is now (eight years later) in good health.

I have before me the full daily notes of this case, as written out for me by Dr. Child, and may confess that on again reading them I am, as I was at the time, impressed with the belief that the boy owed his life to our abstinence from operating. The precise diagnosis must remain in doubt. The cause of obstruction may have been a band, or the case may, which is perhaps more probable, have been one simply of block. I assert with confidence that there were no features whatever by which it could have been distinguished from strangulation by a band, and that it was a case in which, according to modern doctrines, an operation ought certainly to have been performed.

(*To be concluded.*)

A CASE OF ACRO-MEGALY.

I WILL give the narrative of my case as I wrote it out in the first instance. When the patient called on me I had not seen Dr. Pierre Marie's description of the new disease named by him, "Acro-megalie," and the conditions which my patient presented, were quite new to me. On Jan. 28, 1887, I wrote the following account :—

"The case of Mr. C—— B—— of N—— is a most extraordinary one. His most prominent symptom has been a distressing and almost constant headache, which is mitigated only by taking food. The headache is always worse in the forenoon, beginning soon after breakfast, and steadily increasing till lunch. It never prevents his sleeping well, nor interferes with his eating. It is always present, more or less, when he wakes in the morning, and if by accident he is awake in the night he is always conscious of it. As a rule, however, it is never so bad in a recumbent position as when standing. With this headache of which more must be said subsequently, the most remarkable changes have occurred in his features. He brings me a photograph taken ten years ago, which is in most singular contrast with the present appearance of his face. He had at that time a rather thin nose and finely marked features, whereas his nose has now become thick and tumid, and the skin of his face generally is almost like that of a leper. On the forehead it is thrown into thick, bossy folds, between which are deep wrinkles. At right angles with these folds, three or four furrows pass vertically upwards from the top of the forehead across his scalp. I never observed these vertical creases in any marked degree in any other person, but, no doubt, they are only exaggerations of what is normal. His skin is not only thickened, but it has become abnormally loose, and can be

easily pinched or pushed into thick folds. The wrinkles on the forehead and the scalp are probably in part due to this looseness and thickening, and partly to the constant frowning which his headaches have caused. His ears are scarcely, if at all, involved in the general hypertrophy which the skin of the rest of his head has undergone. His age is 34. He has been married eight years, and his wife has borne seven children, of whom four are living and healthy. His grandfather had gout. His father, who came with him, is a florid, fine-looking man, in good health. In addition to the headaches and the tegumentary hypertrophy Mr. B—— shows an almost unique condition of deformity of his fingers. These have all become twice their natural width, giving to his hand, naturally a large one, an enormous size. The increase in width is greatest near the end, and it gradually ceases towards the knuckles. It is not attended by any special enlargement of joints, nor is there any disease of the nails, excepting their increased width. The skin of his hands is thick, but it is not muddy, or loose, like that of his face. On careful inquiry as to the order in which the symptoms had developed, it seemed certain that the enlargement of his fingers was noticed prior to the appearance of headaches. He consulted Dr. Garrod for the fingers more than two years ago, and at that time he believes he was not specially liable to headache. The iodide of potassium was prescribed with other remedies for the fingers. In connection with this I must here state that his father has an idiosyncrasy against the iodide, and has on two occasions experienced symptoms of poisoning from single small doses. On each occasion his face and scalp became much swollen. In my patient, his son, no obvious disagreement of the iodide was noticed, but it is from the time of its use, that the headaches date. About the time that the headaches began, Mr. B—— used to be much annoyed with singing in the left ear. This is still present to some extent, but has, as he described it, left the ear and become fixed in the middle of his head. It is not a constant symptom, but is usually present when the headache is bad. It occurred to me that it was possible that the case might be of the nature of myxœdema, but I could find no trace of general œdema, and no

dulling of the intellect had been experienced. Mr. B—— is a solicitor, and he never allows his headache to interfere with his attention to his profession. He is accustomed to sleep eight hours, to take a cold bath every morning, and to take either wine or beer twice in the day. Although his tongue is always furred and his urine always thick, yet he avers that attempts to restrict his diet have always had the effect of making him weak and miserable, without the slightest relief to his headaches. At one time he abstained for several months from stimulants, but found no benefit."

"As regards the measures of treatment which have been tried, it may be said that he has used almost all the ordinary forms of tonics, with purgatives, salines, and for a long time the bromide of potassium. Indian hemp he has pushed until it made him feel intoxicated and unfit for his occupation, but his headaches remained as before. There is but little to add that can help us to the discovery of the cause of the headaches. Mr. B—— has never suffered from constipation, but he habitually loses blood by stool, without pain. When a boy he used to have pain, and probably had piles. He is not liable to cold feet. He never in his life had syphilis; and although both his father and grandfather have suffered from gout, he has never had it in any definite form. He once tried a complete rest in the South of Europe, and was away from business and his family for more than a month. Neither whilst away, nor after his return did he experience any alleviation of his headaches. He says that sometimes when out fishing, and enjoying a perfectly quiet day, he has been almost free from pain, and he notes definitely the influence of a liberal meal in giving him relief. Neither tea, coffee, nor stimulants are, he thinks, of any benefit. He used formerly to be a heavy smoker, but lately has been strictly moderate. In support of the suspicion that the iodide of potassium may have caused the face to swell, his father states that a year ago his face was much more swelled than it is now, especially under the eyes."

Not long after the above narrative was written, I became acquainted with M. Pierre Marie's paper on what he had named Acro-megalie, and it at once occurred to me that probably my patient was an example of the condition which

he had described. I had, however, no opportunity for seeing Mr. B—— again until two years later, when in consequence of my request, he was good enough to come up to town for a further examination. I then made the following notes:—

"Mr. B—— called on me a second time in March, 1889. His aspect was decidedly less peculiar than it was two years ago. He looked less heavy and his features less thick, and the folds of his scalp were not so conspicuous. He was, he said, free from the discomfort in the use of his eyes which he had formerly complained of, and, on the whole, his headaches were less severe. The latter were however still very troublesome, and as formerly they usually came on in the forenoon. He had not been obliged to increase the size of his hats recently. The large size and heavy appearance of his lower jaw and lips were still very conspicuous, as also his giant fingers. The latter were large and flat, the flatness being especially marked at the joints though it was not restricted to them. The terminal phalanges and the nails were widened also. The end of one forefinger around the last joint measured 2¾ inches, and the others were in proportion."

I ascertained the following additional particulars: "His height without his boots is just six feet, his left foot he believes to have been for many years half an inch longer than the other. The foot measured from heel to end of great toe eleven inches. His toes were large and flat like his fingers, but not in similar degree.

"He had some difficulty in closing his hands owing to the clumsiness of his fingers; thus he could not make a fist. He could, however, grasp any large body, and he said that he could touch the keys of the pianoforte as well as ever. There was certainly some enlargement of the joint ends of his phalanges, but he had no arthritic pains. The fingers were chilly and showed some venous congestion. Their overgrowth ceased, or, almost so, at the knuckles. Certainly the skin and all the soft structures were involved in the overgrowth. The girth of his head was twenty-four inches, the height from ear to ear thirteen."

The group of symptoms which are now known as Acromegaly or Marie's Disease was first described by Dr. Pierre

Marie, who was at that time at the head of the laboratory of the Salpétrière Hospital, and an assistant of Professor Charcot. Dr. Marie's first communication was published in 1886, in the *Revue de Medicine*, and comprised two cases. In the recent number of *Brain* we have a second article from Dr. Marie's pen, giving the results of his more recent investigations on the subject, with a critical summary of the facts published by others since his first paper appeared. The word "acro-megaly" means simply large extremities, but in its clinical use, as Dr. Marie insists, it is to be applied only to cases of a conspicuous and non-congenital overgrowth, or hypertrophy of the extremities. By the extremities are meant the head—more especially the lower jaw, nose, and face—and the upper and lower limbs, but especially the hands and feet, and more particularly their digits. The disease has to be distinguished from exophthalmic goître, myxœdema, gigantism, and more especially from the osteitis deformans of Paget. Under all these several names Dr. Marie finds that cases of true acro-megaly have been described by other writers. It is, perhaps, not improbable after all that acro-megaly ought to be placed in the same family group with osteitis deformans and myxœdema, since although itself quite distinct from both of these, they are all three examples of slowly progressive tissue changes with hypertrophy, commencing in adult life, and progressing gradually in most instances to a fatal cachexia. Myxœdema is now known to be associated with degenerative changes in the thyroid gland, whilst respecting the causes of osteitis deformans and acro-megaly,* we have as yet little or no knowledge. From osteitis deformans we may distinguish acro-megaly, by the absence of any tendency to bending of the long bones and to loss of stature. The enlargement of the face, and more particularly of the lower jaw, is also in it a very conspicuous feature, which is for the most part absent in the former malady. In myxœdema, although at first sight the puffy face, disfigured features, and swollen hands may seem to resemble acro-megaly, yet the entire absence of any true enlargement of bones, and the fact that there is increase of

* Dr. Marie holds, however, that it is usually associated with persistence of the thymus and hypertrophy of the pituitary body.

cellular tissue elements in all parts, and not in the extremities only, may suffice for a diagnosis. Sir William Gull compared the face of myxœdema to the form of a full moon. In acro-megaly it has the difference of becoming considerably elongated and of a very well-defined elliptical form. In osteitis deformans the preponderance of enlargement being in the bones of the cranium and not of the face, the general aspect resembles that of moderate hydrocephalus; the face looking too small and somewhat triangular. It is scarcely necessary to mention the rare affection to which Virchow gave the name of leontiasis ossea, as it can hardly give rise to difficulties in diagnosis. In it there is great deformity of the head and face, owing to the outgrowth of bony tumours, and there is no hypertrophy of the hands or feet.

Of acro-megaly, in his latest communication, Dr. Marie writes: "Its course is of very long duration—twenty, thirty years, or even more. The onset in the majority of cases seems to occur between the ages of twenty and seventy-six; but hitherto we have failed to obtain definite data on this point. Since the diagnosis is made only when the affection is very advanced, we have to trust entirely for the period of onset to the patient's statements. At the very commencement the symptoms are but little noticed, except the suppression of the menses or the headache. However, the dimensions of the extremities continually increasing, the patient is astonished to perceive that he has to change his fit as well for his shoes as for his gloves; some individuals do not even notice that they have become prognathous. Later on (but perhaps not always) arise affections of vision, which sometimes end in complete blindness. Finally, little by little, the patient falls into a condition of progressive cachexia, which necessitates his confinement to bed; this lasts a few years, and then death supervenes in an unexpected way, with the indications of syncope."

We do not quite complete the picture of acro-megaly when we describe the lesions to which the name more especially applies. There is often considerable hypertrophy of the vertebræ, the sternum, and the clavicles. The frontal sinuses are also the seat of marked dilatation. Dr. Marie believes that great

dilatation of the sella turcica with hypertrophy of the pituitary body is to be looked upon as a constant accompaniment, and that with these there is also persistence of the thymus with "hypertrophy of the cord and ganglia of the sympathetic system." * He thinks that the cases described by others under the name acro-megaly, in which these conditions were absent, were errors in diagnosis.

A feature in which the case which I have recorded above differs somewhat from those published by other authors, is the remarkable hypertrophy of the scalp. The condition almost approaches elephantiasis, but with the difference that it is a pure hypertrophy and not the result of chronic inflammation. There is no solid œdema whatever, nor any trace of adhesion to the deeper parts. The thickened scalp can be moved about easily and thrown into loose folds. The hypertrophy is equal in almost all parts.

As yet this disorder has occurred only in isolated individuals, and without any history of family proclivities to it or any allied maladies. Professor Erb has, however, in the *Deutsches Arch.*, 1888, described the cases of two brothers, in whom it was at first supposed that this was the malady present. In them, however, the hypertrophy of the limbs, especially of the feet and legs, had advanced far beyond what is seen in true acro-megaly, and had assumed elephantoid proportions. Their heads were also almost, if not wholly, exempt from change. On account of these and other deviations from type, Dr. Marie inclines to reject these cases from the category of acro-megaly, and to give them position as examples of a malady hitherto undescribed, and which he would propose to recognize by the name of the two patients as "Hagners' disease." If I may venture a suggestion on a question so full of intricacy, it would be that they are, after all, examples of what may be called the family-form of acro-megaly. The law of "family diseases," that is, of maladies which occur in marked forms in two or more of the children of the same parents, is that they usually

* In making these statements I am quoting very liberally from the article in *Brain*, to which reference has been made. Those who desire more detailed information must consult the original in BRAIN; *The Journal of the Neurological Society*, now so ably edited by Dr. De Watteville.

present great intensifications of some disease which is common in isolated cases. Thus of ichthyosis, retinitis pigmentosa, Kaposi's disease, and other well-known examples of family disorders, we have the milder prototypes not unfrequently under observation in isolated instances.

DISEASES OF THE EAR.

No. III.—*Two cases illustrating a form of slowly progressive Deafness which occurs in connection with Rheumatic Gout.*

THE two following cases may serve as an appendix to what was said in my last number on gouty seborrhœa of the ear.

CASE I.—Mr. H—— is deaf in his right ear to such an extent that he always insists on sitting with the left next to those to whom he is talking, but not by any means to absolute loss of hearing. He hears a watch close to the ear without its actually touching. He hears fairly well through the cranial bones, and can persufflate both eustachian tubes easily. His other ear is failing somewhat, but he is quite able to conceal his deafness from his friends. He has had attacks of Menieres symphni of a well-marked kind, but these symptoms have been quite transitory. He complains much of difficulty in appreciating the direction from which sounds come, and in going upstairs cannot tell whether a noise is above or below him. Mr. H—— is a man of 54, and in good general health. He inherits gout strongly on his father's side, but has never had anything himself which he has recognized as definitely such, and he still drinks malt liquor.

The history of his deafness is that twenty years ago he began to need the use of the ear syringe. From time to time he had plugs of wax removed from the right ear, and was always much helped by it. By degrees he found that the syringing produced less and less benefit to his hearing, and now it does but little good to the right ear. He has never had pain or discharge, but his ear is susceptible to cold

wind, and he always covers it when exposed. He never had seborrhœa. He is always very careful not to get water into his ear. He has had a dull singing in the ear often, and a feeling of "stuffiness" giving rise to a habit of pressing the antitragus sharply up and down over the meatus, in order to remove the sense of fulness. His left ear has recently needed syringing, and has had similar symptoms to those which were present in the other at the beginning.

Case II.—My next case was kindly written out for me in full by the patient himself, a surgeon. It is much like Mr. H——'s, but with some differences. I give it verbatim, as supplied to me:—

"Through life, and to the age of 56, I had good hearing. Then in bathing I got 'water into the right ear,' which instantly produced a dummy feeling of stuffiness. I had several times had this before, and after a little trouble had got the water out by ordinary expedients. On this occasion I tried everything I could think of for a week or more, and the feeling of distension continuing, I then went to Mr. B——. He immediately told me that my trouble was not from water but from wax. No doubt some water had, in bathing, got sucked under the plug of wax. He syringed out a thick plug of hard wax, and I was quite relieved. I became able now to let water go into the ear freely without experiencing any of the inconveniences to which I had long been liable from it. I had formerly often plugged my ears before bathing for fear of water getting in. Thus it would seem very probable that the plug of wax had been present a long time, and had been the cause of the inconveniences which the entrance of water had caused me. I should have added that Mr. B—— took wax out of both ears.

"A year later I needed syringing again, but not much wax was obtained, and I got but little benefit. I now became liable to slight attacks of inflammation of the canal, attended by heat, itching, sense of fulness, and a discharge of a secretion like fluid wax. There was no severe pain, but great discomfort from a feeling as if the ear were deeply plugged by sponge. On some occasions actual earache was threatened, and the auricle and meatus were a little tender. There was

always much itching, and I was always very conscious that if I yielded to the tempation to rub or to push the finger or brush into the meatus, I should soon cause inflammation of a painful kind. The more free the seborrhœa, the less was the sense of pain. I had once had a very slight attack of erysipelas in the nose, and once I had thought that a general redness of the auricle with swelling of the canal was of an erysipelatous type. I was at all times very sensitive to cold air blowing into the ear, and could not sit in a carriage with the window open, nor enjoy a breeze on a hill without finding that the ear was beginning to ache. It is to be clearly understood, however, that never in my life have I had severe or lasting earache, and never any purulent discharge. The remedy which always suited my seborrhœa was a very weak ointment of yellow oxide of mercury which you once prescribed for me. Under its influence the discharge and irritation always subsided.

"Unfortunately there occurred several times a sort of second stage to the attacks, and the sense of plugging increased rather than otherwise, when the discharge ceased. I had just got rid of one of these attacks at the time of the celebration of the Queen's Jubilee in Westminster Abbey (June, 1887). Whilst in the Abbey and looking about, I began to find that I felt giddy and sick. By dint of sitting very still and looking nowhere the feeling passed off, and I afterwards ate a good lunch. The giddiness, however, came on rather severely again in the evening. The next morning, on getting out of bed, I reeled, and it was with difficulty that I could dress. I felt sea-sick and could take no breakfast. In the course of the day I got better.

"Another point must now be mentioned. I had had no inflammation of the *left* meatus, but this ear also became dull, and for a few days I was in great anxiety, for there was humming in both and such a dulness of hearing that I feared lest deafness was coming upon me. I now observed that my dulness of hearing and humming were both of them worse after breakfast, and by accident having taken a cup of strong coffee at a friend's house, I discovered that it was the coffee which caused it. On this point I subsequently tried many

experiments, and became quite sure that coffee, if strong, or in large quantity, always made the ears ring, and made me for a few hours very deaf. The deafness was always greatest in the right ear, but it was present also in the other. I could always hear a watch placed on the forehead and on the left side at two or three inches from the ear.

"These symptoms passed, after a while, quite away, and during the last four months of 1888 I had no discomfort, no singing, and could take coffee and tea without any very perceptible effect. In October I had an extremely bad cold with sorethroat, but my ears were not in the least affected by it.

"In the end of December my old symptoms recurred. The right ear began to burn and itch, and then a discharge set in. One evening the pain, a dull ache, was very considerable, and I feared a severe inflammation, but by dint of very hot fomentations, long continued, and the mercurial ointment, the pain passed off. Then followed as before a period of dulness and sense of stuffing in *both* ears, the right being much the worst. Again, as before, I found both ears worse after tea and coffee, especially after the latter. I was in perfect health, and had not the least cold on me. I had, however, some slight pains in my wrists and ankles which were of the nature of rheumatic gout, and once or twice my left great toe very decidedly threatened to inflame. For years I had been liable to have uric acid appear in abundance in my urine. I asked myself whether it was likely that the ear attacks were of a gouty nature. Several times I have relieved them definitely, and in the course of a quarter of an hour, by drinking a tumbler of hot water with half a teaspoonful of carbonate of soda in it. They are always worse after tea and coffee, but better after lunch and dinner. They are made worse by giving attention to any one, and I always become more conscious of deafness and humming during conversation. As regards the inheritance of gout my father undoubtedly had a tendency to it, and his fingers were much crippled by nodi digitorum, so also an uncle. Both of them were, however, total abstainers from middle life, and they never suffered from sharp attacks of acute gout. Three of my brothers have had ear symptoms, much, I believe, like my own, and

two of them are very deaf. I may add that I have been through life liable to bad attacks of ordinary catarrh, which sometimes leave the head and settle in my throat and chest. In these, however, my ears never suffer. I have never in my life had anything deserving to be called earache, and can bear any ordinary exposure, unless the wind be unusually cold. If it is, the ear exposed to it always begins to ache a little, and I have to protect it."

I do not doubt that cases such as these are really examples of rheumatic gout affecting the ear. That malady is probably by far the commonest cause of deafness in middle life and of the symptoms which rank as Meniere's disease. Its effects are not restricted to any one structure of the ear, but probably involve all in various proportions in different cases. Anchylosis or stiffening of the chain of small bones is probably one of the most important results as regards the loss of function, but not by any means the only one. The malady is not true gout, but rheumatic gout; and the exacerbations may sometimes be due to errors in diet, and sometimes to exposure to cold or to changes in weather. Recurring seborrhœa is a frequent symptom, but by no means an essential one. Thus it was absent in the first of these two cases.

No. IV.—*On Humming noises in the Ears of Nervous Origin and always occurring on both sides at once.*

There is a peculiar form of singing in the ears, or rather of humming, which patients often do not locate in the ear but assert that it is in the head. If it is heard in the ear it usually affects both ears alike. It occurs under circumstances which often afford no explanation of it. Thus it may be present in robust, healthy-looking young men. Indeed, I have encountered it more in men than in women, and seldom in association with any marked defect of nerve-tone. In some it is quite constant, and may last for months together, yet without any obvious tendency to failure of hearing. Yet probably it is, in the majority of cases, the precursor of deafness. I have carefully questioned several subjects of this symptom as to the conditions under which the singing was made worse. Some

could not assign any conditions whatever. Others said that it was worse after worry or fatigue, and was specially increased by railway journeys. In most, I believe, it is worse after breakfast and better after dinner—the explanation being that wine relieves it, and that tea and coffee make it worse. In more than one instance I have had the definite statement, after careful observation, that it was increased in a remarkable manner by coffee. If the tea or coffee be taken after wine, or after a full meal, this effect in making the ears sing is not noticed. In the most marked instances in which the singing is produced by coffee-drinking, it may be attended by temporary deafness, and may pass from a dull, humming sensation, to a sort of dummy stuffed feeling, which is very uncomfortable, producing a sensation as if the deeper parts of the ear were plugged and full. This condition is probably closely similar to what occurs in quinine deafness.

As examples of the milder forms of continuous and symmetrical humming I may mention the following:—

Mr. McA——, aged 20, a Cambridge graduate, of large frame and very robust health, but covered with acne on his face and shoulders, told me that he had been for some years liable to singing in the ears. He was not in the slightest degree deaf, and after his ears had been syringed I found the membrana tympani on both sides quite normal. He said that the humming was not in his ears, but in his head, and that he could not locate it in the least on either side. It never left him, but under conditions of excitement he did not notice it, and it chiefly troubled him when he was alone and trying to read. His mother had suffered from a similar singing and had ultimately become somewhat deaf. Probably we may take the fact that this young man suffered most severely from acne as proof that he was in some degree out of tone, but there was no other evidence of it.

In another case a young gentleman of 24, apparently in vigorous health, complained of precisely the same symptom. It was always, he said, worse in the early part of the day, and especially after breakfast, at which he took tea. It was also worse after railway-journeys, and after smoking and drinking overnight.

When we consider the age of the patients it is very probable that, although not recognized, the influence of the sexual system (nocturnal emissions, &c.) was really felt as interfering with nervous tone.

No. V.—*Acute Inflammation of the middle ear, leading to Necrosis in an Infant of six weeks old.—Permanent facial Paralysis with Deafness.*

The following narrative was given me, by the father of the patient, six years after the occurrence of the illness to which it refers. He had begun by telling me that one of his children had one side of the face partly paralysed. I quote as nearly as possible his own words:—

"The child when six weeks old was supposed to have caught cold during very severe winter weather. No one could tell what was the matter with it. It became ill, had discharge from the right ear and great swelling of the glands in the neck. My own doctor, after a while, said that there was a polypus in the ear and sent me to town to consult Mr. C. F——" (naming a well-known consulting surgeon). "He thought that the swelling of the glands betokened malignant disease, and said that the child would die and that nothing could be done. Some months later, however, as the child got better rather than worse, we went to Mr. D——, the aurist, who said that there was no malignant disease whatever, and who repeatedly gave the child chloroform and picked out from the meatus the small bones of the ear and some fragments of the bone around them. After this some of the glands in the neck were cut out by Mr. ——. They were said to be 'cheesy.' After the removal of the bones the ear gradually ceased to discharge."

"The child is now strong and well but quite deaf in the affected ear and unable to close its eyelids or to manage its lips on that side. It sleeps with the eye open. There is not the slightest discharge from the ear nor any liability to earache."

The case is interesting as an example of acute periostitis, affecting the middle ear, in a young infant and without apparent cause. There was no scarlet fever about at the time and

family is a remarkably healthy one. Although as stated, the weather was very cold at the time, all ordinary care had been taken of the infant, and there had been no known exposure. Still there can be little doubt that the periostitis was due to local chilling, and not to any blood affection. The completeness of the recovery and the good health subsequently may be held to prove this. The destruction of the portio dura shows the severity and extent of the inflammation. The implication of the lymphatic glands and the circumstance that persisting enlargement, requiring excision, was induced are facts of some interest. We see every now and then cases of acute exfoliative periostitis of the tympanum in children and adults, but very rarely indeed in infants.

No. VI.—*On the possibility of retaining hearing after loss of the Membrana Tympani and small Bones of the Ear.*

I quote the following passage from Cheselden's well-known work "On the Bones":—

"At the farther end of the meatus auditorius lies the drum, which is extended upon a bony ridge, almost circular. This membrane does not entirely close up the passage, but has on one side a small aperture covered with a valve. I found it once half open in a man that I dissected, who had not been deaf; and I have seen a man smoke a whole pipe of tobacco out through his ears, which must go from the mouth, through the eustachian tube, and through the tympanum; yet this man heard perfectly well. These cases occasioned me to break the tympanum in both ears of a dog, and it did not destroy his hearing, but for some time he received strong sounds with great horror. And that most excellent anatomist, Mr. St. Andre, to whom I am greatly obliged for this chapter, has assured me that a patient of his had the tympanum destroyed by an ulcer, and the auditory bones cast out, without destroying his hearing."

Mr. Douglas, who commented in an adverse spirit on almost all that Cheselden wrote, expresses, concerning the above statement, the utmost incredulity. Yet it is, we now know

well, a statement of what is quite possible. Since the use of the otoscope a certain number of cases (not of very extreme rarity) have been demonstrated in which the whole of the membrana, together with the bones, has been lost. Scarlet fever has usually been the cause. In these cases the interior of the tympanum can be seen. Yet in some of them the ear affected is by no means deaf.

I have myself recently seen, in consultation, a gentleman who could hear very fairly—he said "quite well"—after loss of the membrane and all the small bones. The exfoliation of the bones was vouched for by Mr. Howse with whom I had the pleasure of seeing the patient.

DISEASES OF THE SKIN.

No. V.—*Very severe Keratosis of the Soles in connection with Congenital Xerodermia.—The same in slighter degree in the Palms.—Influence of excessive Walking and Standing.*

In seeking explanations of exceptional affections of the skin, we must never forget the possible presence of congenital abnormality. Congenital defect with proneness to freckles is at the bottom of the remarkable changes known as Kaposi's disease. The condition of congenital dryness recognized as xerodermia, a mild form of ichthyosis, renders its subjects liable to peculiar forms of morbid change in after-life. Their skins do not perspire well, do not secrete sebum well, and they do not bear the ordinary influences to which the integument is exposed so well as those in whom it is normally formed. Many such patients suffer from peculiar forms of eczema and prurigo, and they are now and then liable to psoriasis palmaris in very exaggerated developments. One of the portraits in Wilson's "Atlas," well shows the state of the palms and soles in a case of xerodermia. It is to be remembered, however, that it is by no means invariable for the palms and soles to be implicated in xerodermia, hence the comparative rarity of cases such as that which I am about to describe.

A commercial traveller, aged 36, in excellent health, was sent to me from Liverpool on account of an affection of his palms and soles as severe as it has ever been my lot to see. The whole of the palm and of the sole in both the hands and both the feet was involved, though not with equal severity in all parts. The epidermis was peeling in plates as thick as cardboard, and the heels were covered with rough

papillary growth a quarter of an inch high. The palms of his hands were dry and horny, and cracked in the middle. The disease did not extend to other parts, but I found on examination that he was the subject of general xerodermia of congenital origin. Everywhere his skin was dry, and showed mapped out areas, the epidermis of which was dry, and looked like thin white tissue paper. He told me that three of his sisters had a similar state of skin. The explanation of the production of the local conditions was not far to seek. He had been accustomed to be on his feet, standing or walking, all day: his usual distance being, he said, twenty-four miles. He was also constantly irritating his palms by walking-sticks, umbrellas, and the like. He was quite aware that his standing and walking irritated his soles and made his feet swell.

The conditions were such as might easily have been mistaken for syphilis, and he was at first quite willing to give support to such a suspicion. I found, however, that what he called the venereal disease had only been a mild clap, and that he was married and had very healthy children. It seemed probable that he had assisted the influence of local irritation, acting upon a congenitally defective skin, by living too freely as regards beer, &c. I should incline, however, to regard the latter as a very trivial element, and I told him that no treatment would ever cure or even benefit his condition unless he could alter his daily habits as regards the use of his limbs. I advised him also to be most sedulous in the application of emollient applications. To these already he had devoted much attention.

No. VI.—*A Note as to Family Diseases.*

The case just given illustrates also some important facts to "family diseases." As stated, the patient and three of his sisters were the subjects of xerodermia. All were married and had children, and, as far as he knew, not a single child had inherited it, nor had it been known to occur in any member of the previous generation. This is, I believe, the usual—not the invariable—law as to family diseases such as xerodermia or ichthyosis, retinitis pigmentosa, Kaposi's disease, and some others.

No. VII.—*On the association of Eczema with liability to Bronchitis and Asthma.*

Although I by no means admit that eczema is usually a catarrhal affection of the skin, or that it has anything whatever to do with catarrhal tendencies, yet there certainly are a few cases in which its attacks alternate with bronchitis and asthma. In some of these it is possible that the nervous element, which is, I contend, by far the chief factor in all processes which ought, in any correctness of language, to be called "catarrhal," may do something in causing the inflammation of the skin. What I wish to assert strongly is that common eczema is not of nervous origin and does not obey the well-known laws of a neurotic disturbance of nutrition. That there are mixed and complicated cases may, without any derogation from this general statement, be readily admitted.

The cases in which eczema alternates with asthma or bronchitis usually occur in young persons, and it is possible that, after all, the one liability complicates the other rather than that there is any true substitution. I have seen, however, many cases in which young children, liable from infancy to acute eczema, were also prone to suffer from severe attacks of asthmatic bronchitis. One such has recently been brought under my notice prominently, as the consultation was specially in reference to the prevention of the bronchitic attacks. The child was sent to me by Dr. Atkinson, of Saffron Walden, and was one whom, two years before, I had treated for eczema. After the relief of the latter the child had become liable to severe attacks of bronchitis. Dr. Atkinson wrote, "In the last two attacks the spasmodic element has decidedly overshadowed the inflammatory. During the last attack but one the temperature reached 104 and respirations 84; but during the last attack, whilst the respirations reached 76, the pulse and temperature were practically unaffected. Is he going to develop true asthma? Can his former eczema have anything to do with this? I should add that the physical signs of bronchitis were present, and that an ordinary head-cold preceded the attacks."

I found that in this instance the eczema had been quite cured, and had not relapsed, and that exactly two years had passed since I had seen the child. His mother was strongly impressed with the belief that the proneness to asthma had taken the place of the eczema, but as will be seen there had been no true alternation. I have, however, notes of several cases in which distinct alternation was believed to occur.

The best treatment for such cases is prolonged change of air, and a seaside residence will usually be found to suit both the skin and the mucous membranes. It may be the fact that in some of these cases an inheritance of liability to gouty tendencies may be the parent of both affections.

No. VIII.—*A case of Vaccinia-prurigo persisting for twelve years and with increasing severity.*

Many years ago I published the opinion that vaccination is occasionally the parent of a general pruriginous condition of the skin. The reader who is interested in the question will find a large amount of evidence detailed in one of my lectures (see "Clinical Surgery," vol. i. p. 15). The vaccinia eruption and that of varicella appear to be alike in their proneness to evoke prurigo. No year passes but brings before me fresh examples of the causation referred to. It may perhaps be worth while to record one of the most recent and most severe which I have seen.

A girl of 13 (Miss F. L——) was sent to me by Mr. Paulin Martin, of Abingdon. She was well-grown, but the subject of lichen in a most severe form, and most terribly scratched. I was told that she would sometimes lay awake most of the night scratching herself. The backs of her arms, shoulders, thighs, and the back generally, were covered with rough lichen papules "as hard and as rough as a nutmeg grater." The greater number of them were crested by little dry blood-clots. There was no general inflammation of the skin on the trunk or upper limbs; but on the legs, where the circulation was at a disadvantage, there was some œdema, and many of the lichen papules had festered, and some were degenerating into ulcers. There were very few spots on the hands, and

none on the face. She said that weather and seasons made no difference that she could observe. The eruption itched intolerably and incessantly. That there was not, and never had been, any scabies in the case, nor any pediculi present, was made almost certain by the fact that there were eleven children in the family and that none of the others had suffered. I was told that the skin was quite clear until vaccination at nine months' old, and that the eruption came out very soon afterwards, and had been increasing ever since (twelve years). I wrote to Mr. Martin, and asked him to be kind enough to ascertain the facts on this point, with as much precision as possible. He replied: "The mother of the child is quite certain that there was no eruption before the vaccination, and that it began within a fortnight afterwards."

I do not think that there can be any reasonable doubt that in these cases a vaccinia eruption is the beginning of the pruriginous state. Those who were never pruriginous before become so afterwards. The persistence and intractability of the affection depend much—as in all forms of prurigo, whatever may have been the initial cause—upon the patient's vehemence in scratching.

No. IX.—*Alopecia Areata usually a Sequel of Ringworm.*

"*July* 30. A gentleman comes to me with the complaint that his hair is falling off. I find ill-defined patches of baldness on the vertex, and general thinness. He is only 31, and in good health. I observe that he has several tufts of white hair, one very conspicuous on his right temple. These he says that he has had as long as he can remember. There are also a few white hairs scattered here and there over the whole scalp. I inquire whether he has ever had ringworm. 'Oh yes, very badly. I remember, when a boy at school, we all had it, and I had great trouble with it. It was a long time before I got rid of it.'"

This little narrative may serve to illustrate my present creed as to alopecia areata. I believe that it is usually a sequela of ringworm. It may occur many years after the

attack of ringworm, or within a short interval, but my recent experience, that is, since my attention has been drawn to the matter, is that almost always in alopecia cases there is a former history of that disease.

In some cases of alopecia, in the adult especially, in the most severe of which all the hairs of the body may be taken, there is a history of recent exposure to contagion, either of ringworm itself, or of alopecia.

I have seen alopecia areata follow ringworm on the head of a calf. For the present I will not go into more detail, but on a future occasion I purpose to produce some statistical evidence on this point.

As regards the patches of white hair in the case just mentioned, it is well known that the hair may grow white after any long-continued scalp disease attended by temporary loss of hair. Ringworm is only one among several which may produce this result.

No. X.—*On the Permanency of Cures in Alopecia Areata.*

We often encounter so much discouragement in the treatment of alopecia areata, that it may be worth while to mention some facts illustrating its complete and permanent cure. My own experience has been that in some of the best cases of apparent cure a relapse has, after a year or two, taken place. In more than one case in which a patient who had been almost wholly bald grew an excellent head of hair, I have seen the whole of it again fall off a year or two later. It may be that I somewhat underrate the average success of treatment, since most of our patients are lost sight of as soon as the cure is well advanced. It is only by accident that we are made acquainted with the results after long intervals. The cases which have induced me to make these remarks are the following, which came under my notice within a few days of each other. In the first, a gentleman of about 50, who was under my care for eczema, told me that when about 20, he had been for a year or two troubled with large bald patches on his head. For these he was for long under the

treatment of the late Mr. Startin, who blistered him repeatedly. After much disappointment, the hair grew again perfectly, and during the thirty years which have elapsed there had been no relapse. In the second case, a lady, of 35, who had a single bald patch, of only two months' duration, on the top of her head, told me that a brother, who was a year younger than herself, had, at the age of 14, suffered from many such patches on his head. Her mother, who was with her, confirmed this statement, and said that the patches were smooth and glossy, and that there was never any suggestion of ringworm. The boy's case took several years of treatment, but the cure was at length complete, and there had been no tendency to relapse since.

No. XI.—*On Tar in the Treatment of Eczema.*

If I were required to name one remedy only for eczema, I would choose tar; if allowed to choose two, tar and lead; and if three, tar, lead, and mercury. Yet for a disease which presents so many phases and varieties both in kind and stage as does eczema, it may seem almost absurd to speak of single remedies. Making, however, allowance for such considerations, I yet hold to a strong belief that tar is the specific for all forms of true eczematous inflammation of the skin. The chief reason that it is not accepted as such is that it is commonly employed far too strong. If weak enough, and used freely enough, tar solutions will, in my experience, almost invariably cure eczema. Common tar water and solutions of carbolic acid are very useful, and come, perhaps, to nearly the same thing; but the remedy which I find most convenient and most certain is the solution of coal tar in alkali sold under the name of Liquor Carbonis Detergens. If I have been induced by lack of patience to prescribe any other remedy, I find almost invariably that I return to this. I use it, however, in extreme dilution. A teaspoonful to a pint of warm water is a common strength, but often it is prescribed much weaker than this. It should be so weak that it does not cause smarting, and it should then be employed like water. The parts affected should be bathed with it, and rags soaked

in it should be laid over them and frequently re-wetted from outside. On no account should oiled silk be used, or at any rate, not in large pieces. It invariably soddens the part, and spreads the eczema. A few small bits may be put here and there to prevent too rapid drying, but it is far better to do without and to rely upon very frequent re-wetting.

Eczematous inflammation is usually, according to my creed, a local and self-infecting disorder. It begins, in a predisposed and irritable skin, by some local excitement, and it prospers under the laws of self-contagion. In most cases the state of the blood has but little to do with it. It cannot usually be cured by internal remedies alone, whereas in nine cases out of ten, it may be cured by local treatment, without any alteration in the patient's diet, or any use of internal drugs.

It is not at all intended in what has just been said to dissuade from attention to diet and the prescription of internal remedies in eczema, but merely to assert that they are of no importance in comparison to external means. I always in eczema cases advise the avoidance of sugar, fruit, and milk, and very often give salines, and in acute cases even tartarised antimony. My friends are often astonished at the prohibition of milk, regarding it as the mildest and least irritating form of food. The testimony of not a few patients has, however, convinced me that it often makes the skin itch, and aggravates eczema. Further, if we reflect, it is the infantile and milk-fed period of life which is the most liable to suffer from eczema. The influence of fruit, and especially of strawberries, raspberries, and of all kinds of fruit eaten with the addition of cane-sugar, is very great in causing the skin to be irritable. It is doubtful whether they ever cause eczema, but they cause scratching, and this brings out eczema. The main agents in the production and perpetuation of eczema are scratching and rubbing. The patient who has strength of will to abstain will usually get well, and no treatment will cure those who cannot. It is often of little use to insist on its avoidance unless we provide some substitute, and it is here that solutions of tar come in so usefully. They abate irritability. A good bathing is as efficient in giving relief as a good scratching, and

is not followed by any reaction. One reason that eczema is so difficult of cure in infants is that they cannot be restrained from tearing the skin, and often undo in a few minutes all that a week's treatment had effected.

Weak tar lotions may be used for eczema without much regard to stage. In a few cases, however, of very acute inflammation, it is preferable to use a lead lotion for a few days, and to add tar only when the congestion is a little abated. The cases are, however, very few in which I omit the tar even at the beginning. Very often, indeed, my lotion consists of liquor carbonis and liquor plumbi diacetatis in equal proportions, diluted as above directed.

Arsenic, I think, rarely does any good in eczema, and often irritates. Weak sulphur baths, as at Harrowgate and Aix la Chapelle, often cure chronic cases, chiefly, I think, those of dry eczema, but I have seen severe cases not only uncured, but apparently made worse, from both places.

In conclusion, I repeat that tar *properly diluted* seems to me to be almost a specific for the eczematous type of dermatitis.

DISEASES OF THE NERVOUS SYSTEM.

No. IV.—*On Recovery from Graves' Disease (Exophthalmic Goître). Note on the non-liability to recurrences of the disease and on the great importance of change of climate in its Treatment.*

One of the most remarkable features in the clinical history of Graves' disease is its spontaneous tendency to recovery, and the patient's freedom from all risk of relapse when once recovery is established. It may, indeed, be conveniently taken as a type-example of a certain class of nervous disorders which are essentially transitory if the patient survives the violence of the first attack. In this feature they differ from another group in which central disorganization occurs, and the disease, however slow, and even when susceptible of temporary relief, is almost invariably aggressive to the end. Of the latter locomotor ataxy is a good type.

I cannot better illustrate what I have said above than by detailing a narrative which has just been given me by a very intelligent lady. I had nothing to do with the treatment of her case, but I could mention several others from my own experience exactly like it. Mrs. Z—— is now a healthy-looking woman of 40; her eyes are decidedly full, but there is nothing that a stranger would notice, nor is there any appreciable bronchocele. Her history is, that ten years ago she all but died of Graves' disease. She was reduced to a skeleton, had constant diarrhœa, and was so weak that she was lifted from bed to couch and never allowed to sit up. Often she was not expected to live the night through, and she probably owes her life to the sedulous attention of her family surgeon, who from time to time succeeded in combating complications which threatened to prove fatal.

on the contrary, is the common result of infantile paralysis, and of other nervous affections. The form of foot distortion which I have usually seen in association with spina bifida, is calcaneus.

The following case is of interest because the distortion of the feet, whilst plainly due to spina bifida, was not present in any appreciable degree at the time of birth.

The child in question was brought to me in very early infancy, with a large firm swelling over the sacrum to the left of the middle line. Although it looked like a spina bifida well padded with fat, the fact that it did not fluctuate, and that it was not in the middle bone, made me hope that it was not of that nature. The child was well developed, and its lower extremities, which I carefully examined, appeared to be perfect.

This child is now (1889) nearly five years old. Its feet are now in the typical position of equino-varus, and there is a hard pad of skin where it treads on the outer side. The mother states that during sleep one foot is always crossed over the other, and that the limbs are quite rigid, her expression being "I could not part them." The child is well grown and in good health. The sacral tumour is little, if any, bigger than in infancy, and gives no trouble. Owing to the defect in muscular innervation which has followed, we can have little doubt that it is a spina bifida, and that some parts of the cauda equina are involved. The mother believes that the child suffers much from headache, and says that she often becomes "a sort of blue."

No. VII.—*Neurotic Catarrhal Affections of the Skin.*

I make claim that side by side with peripheral neuritis, which is now attracting the attention which it long ago deserved, there are a variety of transitory local affections, concerning which we must believe that functional derangements of the nervous system take the chief share. Amongst these are all truly catarrhal affections, these being essentially reflex in their mode of development. It may be that some

times a local inflammation, not itself neurotic, damages the integrity of the local nerve organs, and leaves the part liable to recurrences which are chiefly of a neurotic or catarrhal character. The cure or the prevention of all such recurring maladies is chiefly to be aimed at by the restoration of nerve tone and balance.

The two appended cases may perhaps be permitted to illustrate this class of maladies, although by no means the best that might be adduced. In the first of them it will be seen that the unilateral character of the outbreaks was a fact strongly in favour of their neurotic causation. Suddenness of development and spontaneous subsidence, with proneness to recur, are also features which may be safely held to denote neurotic character. Erysipelas is, it need scarcely be said, the very type of a disease which is not neurotic, but a consequence of direct local damage (from cold, injury, or infection). In the cases to be given, however, it appeared to play the part of cause of a local enfeeblement of nerve control, and thus in an indirect way of a locally recurrent and non-symmetrical malady.

CASE I.—*Recurring Catarrhal Eruption on Face (one-sided); Catarrhal Erysipelas.*

A parlour-maid was sent to me by her mistress with a note, from which the following is an extract. It was in September, 1880. "She has a slight attack of erysipelas of her face, and tells me that she has occasionally had it before. She attributes it to having, in a previous situation, slept in a damp bedroom for some time, but I fancy it may be from some other cause. Caroline T—— is a very fair, large woman, aged 21, with a tendency to flush badly. Her sister, also a young woman, died in a fit very suddenly this spring. I like her so well, that I much wish to help her to a better state of health." The following were the notes which I made when the girl called on me.

"Mrs. C——'s servant:—She has been liable for eighteen months to attacks which she calls 'erysipelas,' on the left side of face. The inflammatory redness passes over the nose to the

left buccal pouch. It curiously happened, and I do not know that I ever saw this coincidence before, that he had herpes on two other parts at the same time. Having explained to him that his throat was not a syphilitic one, I assured him that it would soon get well. This expectation was realized, and in the course of a week or ten days not a trace of the ulcers remained. I have never seen so severe an attack of herpetic pharyngitis as this was, nor do I remember ever to have seen the groups of vesicles arranged symmetrically. I have seen many herpetic throats, and usually the abrupt restriction to one side is an important aid in diagnosis. I have seen them sometimes in those who had never had syphilis, but a large majority have occurred in those who had suffered from that malady. Yet even when there is syphilis in the background, the disease does not seem to be influenced by specifics. Its attacks are usually as transitory as under other conditions, and treatment is to be directed rather to the prevention of repetitions. For this object arsenic and not mercury is, I believe, the appropriate remedy.

I have mentioned the fact that, in the above case, coincidently with the herpetic throat, herpes appeared also on two other parts. These were the left frontal region and the prepuce. On the former it occurred amongst the hair freely, though but slightly on the naked skin. It was strictly limited to one side. Both on the prepuce and scalp the sores lingered long after the throat was quite well.

THERAPEUTICS, &c.

No. IV.—*The Treatment of Psoriasis.*

Since writing the note as to the treatment of psoriasis, in the last number, I have had an opportunity for again seeing the patient who, twelve years ago, was the subject of a therapeutical experiment with chrysophanic acid. On that occasion we cured the right limbs and side by the use of a strong ointment, leaving the eruption still out on the left. The portrait given in my "Illustrations" shows the remarkable contrast which the limbs presented at the conclusion of the experiment. An important fact has just come to my knowledge respecting him. Although the disease has often relapsed to some extent, it has never been so bad on the side which was cured with chrysophanic acid vigorously used twelve years ago.

I had him stripped the other day for inspection, and was much interested to notice the marked difference between the limbs of the two sides. The patches on the right limb were but few in number and small, whereas those on the left were tolerably numerous. He said that this had always been so since his treatment in 1887. Previous to that he had been covered from head to foot. The disease now returns only on his limbs, and not at all on his trunk. Thus the evidence of this case would appear to be strongly in favour of the very rapid removal of psoriasis by vigorous chrysophanic acid treatment, since it appears to show that the skin, having been once got well under the influence of the acid, remains permanently less prone to take on the disease. It might possibly be advisable, whenever our patients will consent to it, to confine them to bed for a month, and, regardless of all inconveniences from staining, &c., use the acid until the eruption disappears.

No. V.—*On the habitual use of Arsenic, and its effects.*

We have heard much of late of the use of arsenic as a "pick-me-up," and of patients acquiring a fondness for it, and being unable to leave it off. My experience in its medicinal use has been very considerable, and my impressions as regards its effects, when long continued, are certainly very different from what we have recently seen so freely expressed. I never knew a patient become fond of arsenic, or experience agreeable effects from its long continuance. On the contrary, as a rule, nothing but anxiety to be rid of a loathsome skin disease will induce the majority of those for whom it is prescribed to continue taking it. Its general effect, if pushed, is not to give vigour, but to diminish it, and make the patient feel apathetic and uncomfortable. Many a patient with psoriasis, well experienced in its effects, has come to me with the petition, "Please don't order me arsenic, for it always makes me feel so ill." So far from its usual effect being to clear the complexion, I believe that unless the dose be very small, it not unfrequently makes the skin dry and earthy, and the eye dull. Of these consequences I have recently published some remarkable instances.* Patients who have taken arsenic for long periods are, I think, without an exception, glad to leave it off, and always experience improvement in general health when they do so. In very small doses it may have some tonic influence, but I do not think that it is one which patients can appreciate, and in doses above the smallest it is a cause of peripheral neuritis and other effects on the nervous system, which are usually the reverse of agreeable to the sensations of the patient. I never knew a patient who, excepting in the hope of a cure, wished to have the dose increased, or who asked to have the drug prescribed.

No. VI.—*Arsenic as a cause of Herpes Zoster.*

A lady (Mrs. F——), for whom I prescribed arsenic for severe acne, with ague, last July (1889), had a severe attack of herpes

* See "Transactions of Pathological Society for 1888," and ARCHIVES OF SURGERY, No. 1, page 75.

zoster, after taking it about a month. The dose was three minims three times a day. She continued it afterwards with impunity and advantage.

No. VII.—*Unpleasant consequences from the use of Sulphonal.*

A lady was sent up to town suffering from epithelial cancer of the vulva. Her manner was such at the time of the first consultation (in my house), that I took her for a person of dull intellect. She submitted to the examination with entire apathy, and appeared to care nothing about what was being done or what was proposed. In fact, she scarcely spoke to me. Two days later I operated in Fitzroy Home. When she was wanted for the operation I found her fast asleep in a chair, and had some little difficulty in arousing her. She again displayed such carelessness as to our proceedings that I felt certain that I had to do with an idiot, and treated her as such. Yet no hint as to her state had been given to me by her friends. After the operation she had retention of urine, and needed the use of the catheter. On the following day she had an erythematous eruption all over her thighs. I suspected a slight form of erysipelas, but the nurse said that she had noticed the redness at the time of the operation, or even before it. It subsequently spread over the whole surface; the skin becoming everywhere of a deep red tint, without papules or other changes. On the second day after the operation I observed an improvement in my patient's bearing, and this continued from day to day until in the end she proved to be as cheerful, bright, and vivacious as could be well imagined. Her countenance also altered, and from that of a heavy, sottish expression, took on one which fitted with her pleasant manners. I have seldom witnessed such a surprising transformation. In the meantime, after continuing out about four days the erythematous eruption entirely and rapidly disappeared, and with it all anxiety about her progress. I subsequently ascertained that she had been taking sulphonal in repeated doses up to the time of her coming to town. No doubt it was to this drug that her mental torpor was attribu-

which have seemed to imply a connection between the use of the Turkish bath and the development of molluscum contagiosum. I have, indeed, for some years been in the habit, whenever an adult comes under my care for this disease, of inquiring as to this cause, and have met with no exceptions. All such patients are men, and all are frequenters of the Turkish bath. In what way the disease is induced I do not know, but I suspect that it is by contagion from gloves, towels, &c. A recent case has strongly impressed this connection upon my mind. A gentleman from Northampton was sent to me for an eruption which had puzzled his medical adviser, as well it might, for he was literally covered with molluscum buttons, in all stages of development. I said to him at once, "You have been using Turkish baths," and he replied in the affirmative. He had been coming frequently to London, and visiting one of the most fashionable of our West-End establishments. The spots had been present for two months, and were rapidly increasing in number. Many of them were very small, but some of considerable size, and some in the stage of furuncles. They were mostly on his back, but one on the abdomen, and a few on the upper arms. I had him stripped before the window, and at once cut out more than sixty. On a second occasion, a fortnight later, I cut out probably not fewer than a hundred, very nearly completing the cure.

It seems very probable that when once molluscum contagiosum has commenced, the manipulations of the bath favour its spreading by keeping the gland orifices open, and transferring by friction the contagious material from place to place. The history usually favours this view, for the spots begin at first as a local patch, and spread from it. This was remarkably illustrated in the case of a distinguished clergyman, who was the subject of this eruption. His buttons, which were very plentiful on his left shoulder, were limited to the scapular region and the adjacent parts of upper arm. Both in him and in the gentleman whose case I have just mentioned the advice had been given to take the baths more frequently, with a view to cure. In one instance the adviser was, appropriately, a homœopath. Although it is easy to

explain the spread of the spots by the frictions used in the bath, this does not account for their origination. It seems very possible, however, that the gloves may be the means of communication from one person to another. The bath-keepers are reticent on the matter, and I have not as yet procured proof of the epidemic prevalence of the eruption amongst the frequenters of any one establishment. I do not doubt, however, that such evidence will in time be forthcoming.

No. VI.—*The papillary form of Epithelial Cancer of the tongue.*

Dr. M. Davies sent to me a few weeks ago an excellent example of the papillary form of epithelial cancer of the tongue. It was so characteristic that I had a portrait taken for the collection in the Museum of the Royal College of Surgeons.

The patient, a gentleman of 56, had been a smoker, but had never had syphilis. He had had some soreness on the right side of his tongue for several years, but he thought that definite warty growths had been present only eighteen months. Of late there had been some pricking pains, and occasionally shoots of pain in the ear. There were as yet no enlarged glands. The papillæ grew in three separate patches, two of which having coalesced now covered the whole of the right front half of the organ, projecting forwards over its tip and edges. Some of the papillæ were at least a quarter of an inch long, and were much foliated. There was no ulceration, and no thickening in the substance of the tongue. The organ could be easily moved about and extruded.

Many of our museums, and all collections of drawings illustrating the pathology of the tongue, contain examples of this malady. Its conditions are very conspicuous and peculiar, and differ wholly from the more common leucomatous patches, due to sclerosis, without papillary growth. It is, however, quite possible that the two may be present together, and both are dangerous, from their liability to pass into cancer. The papillary growths are in the first instance merely hyper-

A CATECHISM OF SURGERY; WITH CASES FOR DIAGNOSIS.

(*Continued from page* 96.)

No. XV.—*The Gall Bladder and Gall Stones.*

1. Make an outline sketch of the gall bladder to illustrate its communication with the liver and bowel.

2. Distinguish between the cystic duct and the ductus communis chloledochus.

3. What is the size of the ductus communis?

4. What symptoms usually attend the escape of a calculus from the gall bladder into the bowel?

5. What is meant by the term "hepatic colic," and for what are cases of it often mistaken?

ANSWERS.

2. The gall bladder is a receptacle placed on the side of the bile duct. Its duct of communication is called the cystic duct. The bile duct, below the point of junction of the cystic duct, receives the name of ductus communis.

3. The ductus communis, usually not larger than a quill, may in some cases admit a cedar pencil, or even the little finger. It is easily capable of dilatation, and allows large stones to pass more readily than is generally believed.

4. A calculus in either duct must cause pain from distension. The pain may be trivial or very severe, varying with the relative size of the stone and of the duct, and with the patient's susceptibility. If the stone be lodged in the cystic duct it will not cause jaundice, but if it remain long in the common duct jaundice from obstruction must occur. The pain usually causes sickness and constipation.

5. The term is applicable to the symptoms caused by the

passage of a gall stone from the gall bladder to the bowel. Mild cases are often mistakenly called "spasm of the stomach," and severe ones may often similate acute obstruction of the bowels.

No. XVI.—*Piles* (*Hæmorrhoids*).

1. Mention some of the chief inconveniences which attend piles.
2. Describe the hæmorrhoidal veins.
3. What are the usual causes of piles?
4. In what classes are they most common?
5. In what way are they associated with disorder of the liver?
6. How do you distinguish, by the patient's description of symptoms, between piles and fissure of the anus?
7. How do you distinguish between piles and prolapsus?
8. What aperients are suitable in cases of piles?

ANSWERS.

1. Losses of blood; sense of weight, aching, and fulness at the anus; frequent prolapse; and, it may be, inability to keep the pile up.

2. The hæmorrhoidal veins attend the hæmorrhoidal arteries, and are of three sets—superior, middle, and inferior. These sets anastomose. The superior, from the inferior mesenteric, are the most important, and are the only ones which empty into the portal. The middle, unimportant, are from the vesical, and the inferior from the internal pudic. Like the rest of the abdominal veins, they have no valves.

3. Habitual constipation; sedentary habits; the use of irritating purgatives (aloes and rhubarb); sluggish liver.

4. They are commoner in women than in men, and in those of luxurious habits than those accustomed to out-door work. Very rare in children.

5. The superior hæmorrhoidal veins communicate directly with the vena-portæ, and thus they are filled if its circulation is retarded in the liver.

6. Fissures seldom bleed, but they cause pain during defecation, which persists and increases afterwards. Piles are

attended by bleeding and discomfort, but not usually by severe pain.

7. In prolapsus there is a ring of florid mucous membrane extruded; in piles there are lobulated masses which are more or less purple and venous looking.

8. Aloes and rhubarb are to be avoided, as also all active purgatives. Castor oil is most suitable. Mercurials, senna, cascara, and salines in small doses are admissible.

No. XVII.—*On Spina Bifida.*

1. Describe the characters of the fluid from a spina bifida.
2. In which sex is spina bifida the more common?
3. What are the chances of survival in spina bifida, and what the usual causes of death?
4. How is the formation of a spina bifida best explained?
5. Is a spina bifida usually covered by healthy skin?
6. What are the relations of the cord to the sac?
7. Is the relation of the cord to the lower part of the spinal canal different in fœtal life from what it is subsequently?
8. Why are the operations by excision and by ligature unsurgical procedures?

ANSWERS.

1. It has a low specific gravity, 1010 or under; is faintly alkaline; contains a little sodium chloride, and a minute trace of sugar.

2. It is more common in girls than in boys, but the disproportion is not great.

3. A large majority of spina bifida infants are puny and feeble, and die soon after birth.

Rupture of the sac and meningitis is a frequent cause of death, but in many instances the event appears to be due to marasmus only.

4 & 5. "A defect in the development of the meso-blast, from which the structures closing in the vertebral furrow are formed." Thus not only the neural arches, but the skin and appendages are deficient. The covering of the spina bifida is usually a thin scar-like membrane, and not skin.

6 & 7. The cord in a majority of cases is expanded on the

posterior wall of the sac, and from it the nerves pass forwards. Remember that the cord in early periods of development extends to the lowest part of the spinal canal.

8. These operations almost certainly damage the portion of the cord or the nerves in the posterior wall of the sac.

No. XVIII.—*Mumps.*

1. Give a clinical definition of mumps.
2. What age, and which sex is most liable to suffer from mumps?
3. Is mumps ever fatal?
4. What are the lengths of its several stages?
5. In what features does mumps differ from the other specific fevers?
6. Is there any evidence as to second attacks of mumps?
7. If mumps ends fatally, what is the usual cause of death?
8. What consequences may result from mumps?

ANSWERS.

1. A specific and contagious fever, which observes stages, and disappears spontaneously, which is not attended by any skin eruption, and of which the chief feature is swelling of the salivary glands. It is not infrequently attended by swelling of the testes, ovaries, or mammæ.

2. The male sex always suffers more severely than the female. The period of puberty and for ten years afterwards is that most liable to severe attacks. Early childhood and old age appear to be exempt.

3. In rare instances mumps may end fatally, always with brain symptoms.

4. Incubation stage, one week; duration of parotid swelling and fever, three or four days; period of subsidence, one week.

5. Mumps differs from other specific fevers, in that it has no eruption, that it does not attack young children, that it shows a sex-preference, that it is attended by inflammation of special glands.

6. There are no records of second attacks, and the general impression of observers is that it occurs but once in a life.

7. No *post mortem* records as yet enable us to speak with certainty as to the cause of death in mumps. Brain symptoms always precede death, but they may be, as in rheumatic fever, due to pericarditis.

8. Atrophy of one or both testes may follow orchitis, and presumably similar changes may occur in the ovaries.

No. XIX.—*On the Treatment of Severe Contusion of the Perineum. Hypothetical Case.*

As a consequence of a fall astride of a rail a man has a swelling in the perineum, and urgent but ineffectual desire to pass water. He is seen by a surgeon within an hour of the accident. 1. What ought to be the treatment?

2. Is the desire to pass water a common symptom in such cases, and does it imply a full bladder?

3. Ought a catheter, if passed through the urethra into the bladder, to be retained, and, if so, how long?

4. Under what circumstances is it best not to retain a catheter?

5. What are the usual results of such accidents?

ANSWERS.

1. First try gently to pass a full-sized catheter. If it can be got in, retain it. If no instrument can be passed, at once make a free and deep incision in the middle line of the perineum, so as to prevent extravasation of urine or allow of its escape if already there.

2. An urgent desire to pass water is a common symptom, and is sometimes independent of fulness of the bladder. The spasmodic attempts may drive the urine into the cellular tissue of the perineum and scrotum.

3. If without making a perineal incision the surgeon have been fortunate enough to pass a catheter, it should be retained for forty-eight hours, and then removed. If the introduction have been very difficult it may be well to retain it for some days longer.

4. If it have been needful to incise the perineum, then it is not necessary to pass a catheter and is indeed better to avoid

it. The urine will escape by the perineum, and the parts will be less irritated without an instrument.

5. A traumatic stricture is a common but by no means an invariable result. All will depend upon the severity of the injury to the urethra, and the amount of sloughing. The use of instruments too early will not prevent it.

No. XX.—*Occlusion of the Principal Arteries of the Head. An Illustrative Case.*

1. Is it possible for a person to survive the simultaneous obliteration of the innominate and left carotid arteries?

2. What changes would be likely to follow?

3. How would the brain circulation be carried on?

ANSWERS.

1. The questions have been suggested by a very remarkable case, by Sir William Gull, in 1865, in the Guy's Hospital Reports, which proved that such obliteration is possible. The autopsy showed that both these vessels had for long been occluded. A firm fibrous structure continuous with the aortic coats passed over the mouths of both arteries and sent a plug into their lumina.

It was supposed that the occlusion had occurred after great exertion more than a year before, but there had been no definite symptoms at the time. The patient, a woman of 41, had become liable to pulsation in the back of the head and singing in the ears.

A year after the supposed date of the plugging, she had three fits; the first with left hemiplegia, the last with a four days' attack of fatal coma. There was a cyst in the right corpus striatum and recent softening in the left anterior lobe.

2. It might have been expected that softening of parts of the brain, especially in the right side, would occur at once. It is possible that the woman's death was delayed by the not improbable circumstance that the occlusion occurred rather gradually.

3. The left vertebral would be the most important vessel. Inosculations between branches of left subclavian and left external carotid would also assist.

No. XXI.—*Tumour in the Popliteal Space.*

A lady of 47 seeks advice on account of a large swelling in the left popliteal space. She says that the knee "squeaks when she walks," and that what she calls the "squeaking" is especially evident when she places her hand on it and then moves it. She has little or no pain in the joint, and walks almost as usual. She fears that the other knee is about to be affected in the same manner. Her father had gout, and she herself, twenty years ago, had a ten days' attack of inflammation of both ankles, so that she "could not stand, nor bear anything to touch them." The attack ended in ten days, but through the whole of the following summer her ankles would ache if she ever walked on damp grass. The tumour described in the popliteal space is soft and fluctuating. It is much more definite when the knee is extended than when it is bent. In fact, when the knee is well bent it almost disappears.

1. Diagnose the swelling.
2. How would you confirm the diagnosis?
3. What should be the treatment of the case?
4. What is the prognosis?
5. From what measure would you scrupulously abstain, and for what reason?
6. Was the attack of inflammation of the ankles gout or rheumatism?

ANSWERS.

1 & 2. The tumour can only be either a diverticulum from the knee joint, or an enlarged bursa; or, what comes to the same thing, a bursa with a communication. The diagnosis may be confirmed by ascertaining whether there is any fluid in the knee joint, and whether the popliteal swelling can by pressure be emptied into the joint. (In this instance it could.)

5. Inasmuch as the tumour communicates with the joint, the surgeon must carefully abstain from any attempt to excise it, since to do so would certainly only incur considerable risk.

3, 4, & 6. The acuteness of the attack in the ankles, the severity of the pain, and its short duration, make it tolerably

certain that it was true gout, that is, synovitis in connection with urate of soda in the blood. On the other hand the persisting liability to pain on exposure to damp, proves a rheumatic susceptibility.

The chronic inflammation of the knee is "rheumatic gout." It is very likely that the other knee will be affected, and certain that the disease will be tedious. The treatment should be directed against both rheumatism and gout. Abstinence from wine, beer, fruit, and sugar should be enforced, and the patient should take meat in moderation, and green vegetables in plenty. Small doses of iodide of potassium, with carbonate of potash and nux vomica may be given. Counter irritation and brine packs over the affected joint are certain to be useful.

No. XXII.—*Severe Keratitis with effusion into both Knee joints.*

A young gentleman of 18, of good features and having perfect teeth, is suffering from very acute inflammation of both corneæ. The corneæ are everywhere opaque and hazy (ground-glass condition), so that the pupil and iris cannot be seen. There is intense dread of light and great pain. Not another symptom can be detected indicative of inherited syphilis, unless we may consider that a chronic synovitis of both knees with considerable effusion is of value in that direction. There is decided increase of tension in both eyes, and the keratitis has resisted liberal treatment by blisters, belladonna, and atropine, with the internal use of iodides and mercury. The patient is the youngest of a healthy family. There is a strong history of gouty inheritance on both sides.

1. Is the keratitis to be regarded as specific?
2. What help in the diagnosis does the symmetrical synovitis in the knees afford?
3. What additional measures of treatment are desirable?
4. What is the prognosis of the case?

ANSWERS.

1. Keratitis of this kind, symmetrical, severe, and with the

ground-glass condition, may in itself, and despite the absence of all other evidence, be regarded as certainly syphilitic.

2. The chronic synovitis of the knees is a valuable piece of corroborative evidence, since it has been frequently observed in the subjects of inherited taint. (The diagnosis was made quite certain by the father's voluntary statements.)

3 & 4. The prognosis is good, since this disease almost invariably recovers. The extreme severity of the symptoms, however, and the increase of tension, are points to occasion some anxiety, and it must not be forgotten that in a few exceptional cases, an attack of syphilitic keratitis leaves the eyes blind. One of two additions to the treatment are indicated. First, the substitution of eserine for atropine, or secondly, the performance of an iridectomy. Against the use of eserine is the probability that the iris is inflamed, and against the iridectomy, that unsightly colobomata will be left when the corneæ become clear. On the whole, perhaps it would be best to try eserine.

[In the case proposed, which occurred before the introduction of eserine, free downward iridectomies were performed with complete relief to pain. The corneæ quickly recovered to a considerable extent, but their complete clearing took about five years. No deafness or choroiditis or other symptoms of syphilis ever occurred, and ten years later the patient was in good health and could see well.]

ARCHIVES OF SURGERY.

JANUARY, 1890.

ON EXCEPTIONAL RESULTS FROM VACCINATION.

THE facts as to fatal vaccination with sloughing of the arm which I published in the last number of THE ARCHIVES (p. 97), have brought me several communications as to other cases bearing upon the subject. It will be remembered that one of the principal questions left in doubt was whether these cases of gangrene, or phagedæna, at the seat of vaccination should be attributed to syphilis, and if so, whether to inherited taint in the infant or to the inoculation of syphilitic virus with the vaccine. In two out of the three cases those most concerned in the treatment of the infants firmly believed that the phenomena witnessed were due to syphilis, and in all there were suspicious facts. My own conclusion was that they were certainly not cases of inoculated syphilis, and most probably not in connection with inherited taint. I arrived at the latter belief with, however, much hesitation and doubt. One of the children (vaccinated, be it remembered, from the calf) was believed to have had both eruption and nodes, and another had phagedænic satellite sores. Under the circumstances of doubt as to diagnosis with which I was compelled to conclude my report, the additional facts which I now publish are very valuable. It will be seen that they strongly support the conclusion that these cases are examples of aberrant vaccinia, or of vaccinia in infants of special idiosyncracy, and not of syphilis in any form.

The following is an extract from a letter from Dr. W——, who sends me a pen-and-ink sketch showing a condition of

things not unlike that in Mr. Clement Lucas's case, but on a smaller scale :—

"I vaccinated on October 4th, with lymph taken from a healthy child, who is healthy still, of healthy parents. Lancet purified. Lymph blown from tube on to back of a saucer.

"Child was previously healthy, and so far is healthy still.

"Inspected on eighth day—October 11th. Satisfactory; vesicles beginning to dry up.

"From this date until October 24th I saw nothing more of the child, but on the 24th the mother brought it to me. I found a blackish slough, at the seat of vaccination, an inch and a half across, and a smaller one adjoining its external border about three-eighths of an inch in diameter. No enlarged glands in axilla; child seemed healthy in other respects.

"The history the mother gave me was, that two days after I inspected it, *i.e.* the tenth day, the vaccine marks began to inflame, and the skin from elbow to shoulder became very red, with a clear line of demarcation between healthy and inflamed skin; the child seemed feverish for two or three days, but after that its general health did not seem to suffer in any way. After five or six days the redness went away, and on October 24th—twenty-first day after vaccination —she brought the child to me."

This child subsequently did well.

A very similar communication is made to me by Dr. H——, a public vaccinator and highly-skilled surgeon :—

Oct. 8, 1889.

Dear Mr. Hutchinson,—I have just read your article in The Archives of Surgery on the fatal cases of gangrenous inflammation after vaccination.

In my practice as a public vaccinator I am sorry to say I have had several cases, although I know of only one case, and that did not come under my own observation at the end, where death was believed to have been the direct result of the inflammation.

I am sorry I cannot furnish you with notes. I can state with confidence that several of the cases occurred in infants who were typical specimens of perfect health. In most of the cases the four vesicles became merged into one deep ulceration, which took months to heal up. I found no progress was made in the healing process until the slough had been removed by persistent poulticing. After that was accomplished I applied a strong lead lotion. In no single case

could I discover any history of syphilis either in the affected child or in the vaccinifer.

In one series of cases the lymph had been taken from a child who was vaccinated from calf lymph from the Local Government Board. In these cases there was not the same gangrenous inflammation as in the others, but a persistent formation of scabs. I have a note of one case which was vaccinated on the 5th of January, and it was not till the 3rd of March that matter had ceased discharging.

With regard to the fatal case, a friend of mine who attended the child when it died, said he had no reasonable doubt that the child's health had been so undermined by the long continued purulent condition of the arm, that it succumbed to some trifling attack of bronchitis. I know from my own observation that the child's arm was for three weeks or a month in much the same condition as the arm figured in your article.

Believe me, faithfully yours, ——— ———

Dr. Gregory's Case of Hæmorrhagic Vaccinia.

Dr. Gregory has recorded, in the Medico-Chirurgical Transactions for 1842, a case which is not without its bearing on the subject under consideration. It is an instance of petechial eruption after vaccination. The vaccine spots themselves were hæmorrhagic, and a large swelling occurred on one temple, and there was bleeding from one ear. It will be remembered by those who read my cases attentively, that in one of them, which was considered to be syphilis by those who had the child under observation, there were swellings on the head and discharge from one ear. In the case referred to, the swellings appeared to be inflammatory, whereas in Dr. Gregory's they were hæmorrhagic; and another important difference is that in Dr. Gregory's the phenomena ran their course during the usual stages of vaccination, whereas in mine they were protracted long after it. In spite of these differences, however, I cannot but think the cases of some essential similarity, and that idiosyncracy on the part of the child, and not anything peculiar in the lymph used, was the cause of what was observed. The facts as regards Dr. Gregory's case are as follows:—A healthy girl, aged four, was vaccinated from an eighth-day vesicle, by Mr. Marson, of the Small-pox Hospital. At the same time, her elder brother and a younger sister were also vaccinated, and to them nothing unusual happened. On the fifth day the mother noticed that the arm of the child, the subject of the case,

was more inflamed than those of the others, and that there were some spots on the child's face. On the eighth day the vesicles were dark and as if filled with blood, and the areola was of a mahogany colour. There were now several petechiæ dispersed over the body, particularly over the neck, face, and arms; there were several patches of ecchymosis on the tibia. On the ninth day "the outer portions of a large areola circle had assumed a yellowish tint, while the inner portions were still of a dark mahogany colour. The vesicles themselves were of a jet black. The petechiæ over the body were numerous. On the left temple there was a very large extravasation of blood, owing to a slight bruise that the child had received. There had been some bleeding from the left ear, and a few drops of blood had escaped from the nostril." In this case the child's health throughout remained good, and the ecchymosed state of the arm and the petechiæ declined with the decline of the vaccination vesicles. On the sixteenth day of vaccination all hæmorrhagic appearances had ceased.

Had the inflammatory process in this case been a little more acute than it was, it is very probable that we should have had an example of gangrene of the arm from vaccination. As it is, we have not only a proof of the power of vaccinia to produce, like variola, a condition of the blood tending to hæmorrhages; but a good example of a copious vaccinia eruption with local swellings over bones which, had they been less definitely hæmorrhagic, might easily have been mistaken for nodes. Dr. Gregory's narrative of the case, it is needless to say, is exceedingly well done; he regards it as a typical example of petechial vaccinia, and states that it is the only one which he has ever seen. In the course of some interesting remarks on the power of specific poisons to produce a state of hæmorrhagic diathesis, he makes the plausible suggestion that many cases described as hæmorrhagic purpura, are probably the offspring of such poisons. He alludes to two other cases in which hæmorrhagic symptoms are said to have followed vaccination. Of one of these a wax model is preserved in the museum of Guy's Hospital (No. 2,705), described as the arms of a young man affected with purpura consequent on vaccination.

Keloid in Vaccination Scars. History of very protracted Ulceration of the Vaccination Sores.

In the following case a taint of inherited syphilis had been suspected as the cause of unhealthy vaccination sores, and on that account the patient was sent to me. The evidence, however, although at first sight plausible, was not conclusive, and my own impression is that no taint existed. The mother of the child had, however, obtained a divorce from her husband under the allegation of cruelty in having given her syphilis. The question as regards the child was one of dates. Miss M——, when I saw her in July, 1889, was eight years of age. She was brought to me on account of the unhealthy state of her vaccination scars, and under the impression that their condition was due to syphilis. I found four nodules of keloid of considerable thickness and of the most characteristic appearance. Nothing is less common, so far as my knowledge extends, than for vaccination scars to take on keloid induration. When they do so, it is probably in consequence of their healing having been unduly prolonged. Such was the history in the present instance. The child had been vaccinated from calf lymph, February 15, 1888. The sores, as I was informed, had taken about eight months to heal, and had for long been in a very unhealthy condition. Her mother insisted, in particular, that they had for long smelt very badly. Although they were said to have become of considerable size, they had never been confluent, and the keloid indurations were at a considerable distance from each other. Most unfortunately, as regards personal disfigurement, the vaccination had been done high up on the shoulder. Not very long after the vaccination, gatherings in the ears occurred. I could not find anything in the child's appearance to suggest inherited syphilis. She was florid and well grown, and her teeth and physiognomy showed no peculiarities. It was said that in infancy she had been very feeble, and was not expected to live, and her mother thought that she then had snuffles; but it was not believed that syphilis had ever been diagnosed. Her mother's history was that the marriage took place in October of 1879, and that, after one or more miscarriages, the child who is our patient was born in 1881. Up to the time of

her birth, and for some time afterwards, the mother had suffered nothing; but in 1884, after the birth of a second child, which died at six months old, the mother came out in a general eruption, which was diagnosed as syphilitic, and for which she was long under treatment. Two years after this she was under Mr. Lawson's care for "an affection of the nerve of one eye," which Mr. Lawson recognized as being probably syphilitic. It should be stated that the second child was treated for inherited syphilis in infancy, and it is further to be noted that in it the vaccination places never healed.

The facts which have been above stated seem to point clearly to the conclusion that the father contracted syphilis some time prior to his wife's second confinement in 1884, and communicated it to the latter. On this supposition the patient was born several years before either parent had syphilis, and we have therefore an instance of unhealthy ulcers in connection with vaccination in a patient who was not inheritedly tainted, and for whom the lymph was taken from the calf. I am well aware that these conclusions must be held with some degree of doubt. From the description given of the sores, their acutely inflamed state, &c., my impression is that they only just stopped short of passing into the gangrenous condition described in my former paper, and it is of interest to note that abscesses in the ears occurred, as was the case in one of the patients referred to. In the case referred to, as in the present one, the vaccination was from calf lymph.

ON SOME MIXED FORMS OF ECZEMA (HYBRIDS WITH ERYSIPELAS, URTICARIA, &c.).

(*Continued from page* 133).

Eczema-Erysipelas from the use of Arnica.

THE eruption which is in some persons invariably evoked by the local use of arnica, is, I believe, usually a mixed form of eczema and erysipelas. In some instances it partakes more of the character of the one, and in others of the other, the balance being turned by the pre-existing proclivities of the patient. The arnica dermatitis is sometimes very severe, and may spread over a whole limb. It has a definitely marked, advancing edge, just like that of erysipelas, and is attended by much œdema. In the case which I have related, this hybridity appeared to exist. The patient had had a contusion which caused swelling, and for the swelling arnica was used, with the result of an acute attack of erysipelas-eczema.

What we witness in cases of personal idiosyncrasy in reference to arnica, we may make use of to elucidate other cases in which the cause is less evident. In some persons sea-air, or a draught of cold air, or the sun's rays on a hot day, may produce effects precisely parallel to those which follow the irritation of that special drug.

Eczema-Erysipelas-Urticaria.

The disease which I have next to describe is a combination of eczema, erysipelas, and urticaria. It displays sometimes simultaneously, sometimes at different periods, the distinctive phenomena of all these three well-known types of disease. And it displays them, I contend, because the causes of all three are in action at the same time. It is not a case of

mere resemblance, it is one of essential mingling. I have seen a good many examples of the disease referred to, and might be tempted to coin a new name for it if I could think of one which would not be misleading.

I will again recapitulate the essential features of the three type maladies, or rather forms of inflammation, which I have named. *Eczema* is an inflammation of the skin, the liability to which is often inherited, which often occurs in infancy or childhood, which affects by preference certain well-known regions, has a tendency to spread and persist when it has once originated, and is marked by the exudation of a serous secretion from its inflamed surfaces.

Erysipelas has for its peculiarities a tendency to rapid development and spreading, great œdematous swelling of the parts affected, with vesication, an invariably limited duration, and in the case of the face a remarkable proneness to recur.

Of *Urticaria* the principal features are, that it is developed in what are called wheals, which are often produced with extreme rapidity, and may disappear as quickly. These wheals, whilst not unfrequently due to external causes, are remarkably prone to be developed in connection with errors in diet.

We know nothing of any form of erysipelas which is due to articles of food or even to drugs, and only in a very modified sense do we recognize such causes in reference to eczema, whilst they are everyday occurrences as regards urticaria.

I have treated, however, three or four almost exactly similar to the following within the last month (June, 1881). The following are the notes as taken at the time :—

Miss Ethel T—— is a young lady of rather fair complexion, and, in a general way, of good health. Her father and other relatives have been much troubled with eczema. In infancy she had erysipelas, and also eczema. She continued through childhood liable to what she calls attacks of nettlerash and erysipelas, but it was not until about two years ago that her disease assumed its more troublesome form. She then, whilst residing in France, had an attack which did not limit

itself as usual to her face, but spread over the whole body. It is just possible that the spreading was aggravated by the oily applications which were employed. At any rate she had a most severe illness, and was from head to foot affected by a red and weeping condition of the skin. She was a month in bed, and at the end of the time was still far from well. Ultimately, however, her skin perfectly recovered, and for some months remained as sound as ever. Then she had another attack, and, to shorten the story, she counts some eight or ten during the twenty-four months. They have always begun on the face, and have usually caused such swelling of the eyelids as completely concealed her features and closed her eyes. At the same time the hands have usually been covered by little vesicles, which began between the fingers and then spread over the hand generally. On the lower part of the face and neck the eruption has always been attended by little pimply vesicles, which broke and ran water. Desquamation of the epidermis has always followed the attacks. The latter have shown a definite tendency to spontaneous disappearance, and of late, whatever the treatment pursued, she has always been well within a month.

Let me now ask attention to a few facts which help our conjectures as to cause. Miss T—— is a total abstainer as regards stimulants, and has always been so, and, from a dislike to meat, she is almost a vegetarian. An attack which she had last November was, she believes, certainly due to having eaten some sausage. More than once she has believed they were caused by eating strawberries, and twice they followed exposure to cold wind when heated by exercise.

She believes that place of residence has great influence, and has never suffered from the attacks whilst living in London. Her home is in a cold bracing place, and her worse attacks have been whilst staying there, and during the autumn months.

She has evidently a very irritable skin, gnat-bites always inflame very much, and on one occasion a cold bandage applied to the neck brought out an eruption. In childhood she repeatedly had nettlerash from eating porridge.

It is interesting to note that although in former years she

mere re[illegible] that strawberries induced the attacks, she has been seen a [illegible] year, whilst living in London, to eat them with mig[illegible]ty.

of [illegible] narrative has, I hope, proved satisfactorily that our [illegible]tient has had urticaria in connection with its ordinary causes, a recurrent inflammation of the face, not distinguishable from erysipelas, and finally eczema of the face, neck, hands, and body. Lastly, she has become subject to recurring attacks in which the features of all three diseases are mingled.

In explanation of her liabilities I would suggest that she inherits a state of skin liable to eczema, since her father has had that disease; that further, her skin is urticarious, since gnat-bites, nettle-stings, &c., occasion very large wheals; and further, that the occurrence of erysipelas in childhood has stamped a proclivity to mild attacks of that disease. I will not lay much stress on this last fact, for I have seen many cases of this hybrid malady in which there was no history of infantile erysipelas.

Recurring Erythema-Urticaria.

There is a peculiar form of erythematous urticaria which is caused by cold. Its subjects are almost always women. I have known more than one case in which a lady could not expose her face for even the shortest time to a breath of cold air without having it flush and swell. The liability usually lasts for some months. A good example of this malady was presented in the case of a Mrs. L——, in whom it had been quite suddenly developed, during cold weather in the early spring of 1888. It had been present a fortnight when I first saw her, and it affected her face and all her limbs. Her face was flushed and red without any obvious wheals, but on the legs and thighs there were long whitish wheals in the midst of general erythematous congestion. Mrs. L—— had a very furred tongue, and admitted that she had been out of health, and feeling chilly. She had not noticed any dietetic influence on her skin. The attack had begun by flushing of her face, which had extended almost immediately to her hands and arms. Its connection with cold seemed very definite.

Contrary to what is usual in urticaria she said that she was only comfortable when warm in bed, and that the moment she got out in the mornings her skin began to burn and itch. She was also comparatively comfortable when in a very warm room. She had never been in the least liable to nettlerash until the present attack.

A fortnight later Mrs. L—— was quite well of the skin irritation, but had developed a severe pain in the back of neck after a rigor, with herpes on lip. (See March 5, 1888, Day-book.)

Eczema-Urticaria.

I may quote yet another good case of a mixed form of eczema, with an alliance perhaps to urticaria and possibly to erysipelas. At any rate the attacks began acutely and usually with shivering, and they cleared off after a while almost spontaneously.

Another alliance may be traced in the fact that this patient was in early life under the late Mr. Startin for common psoriasis, and that she still shows some slight patches on her elbows and knees.

Miss S—— was aged 40 when she consulted me in May, 1884. She was then suffering from a sharp attack of a lichenoid and erythematous eczema on her neck and arms; it was papular, or indeed almost in urticarious wheals. It was very pruriginous, and showed the effects of scratching by blood crusts and eczematous exudation. Excepting where irritated by scratching it did not weep. It was almost universal, involving the face, ears, scalp, limbs, and trunk. It was worse on the latter parts.

Miss S—— told me that her first attack was in 1877. In 1878 she had rheumatic fever for the second time. She counted four or five definite attacks of this urticarious eczema. One of them had been apparently caused by eating oysters. All had begun with shivering, followed by burning heat, and after all the skin had peeled.

In describing the sago grain condition on her hand, she used the expression that "little bubbles formed under the skin, which dried up and then broke." It appeared that she had usually distinct deposit of lithates during the attacks

After ten days' treatment by arsenic and alkalies, and a tar wash, Miss S—— was almost well. Her anxiety, however, was rather as to prevention of other attacks, as she alleged they were now recurring very frequently.

Vesicating Erythema.

I could not produce a better example of vesicating erythema, or one which better illustrates its differences from erysipelas, than that of Mrs. ——.

I saw this lady first on May 9, 1888, and she then had two symmetrical groups of vesications over her malar bones. They had been present about a week, and were already beginning to dry. She had a few isolated and abruptly margined patches of erythema on her hands. None of these were larger than sixpences, and none had vesicated. There was a still more scanty crop of still smaller spots on her feet. Mrs. E—— was 26 years of age, and had been married five years. She was thin, but in good health. She had experienced five attacks of the eruption, the first four years ago, and all the others within the last year. The first was the most severe, but affected her face only. It lasted only ten days, and this had been about the duration of them all. They had never occurred in summer, always in winter or spring. One of them had happened whilst residing at Gibraltar.

I asked if the patches had ever begun in the nose and spread from thence to the cheeks, or if they had ever caused the eyelids to swell up, and to both of these questions the reply was "No, never." It will be seen that in these features it differed wholly from recurring erysipelas. Mrs. E—— knew of no cause for it, but was inclined to associate it with cold and damp. The attacks were always attended by constipation. They always ceased spontaneously.

On the association of Eczema-Erysipelas of the face with Chronic Eczema in other parts.

It will be seen that in several of the cases which I have mentioned one of the facts in proof of the mixed nature of the disease was the persistence of eczema on one part of the body,

with liability to recurrent attacks of eczema-erysipelas on others. I have had under care several elderly gentlemen of gouty tendencies in whom this association was a conspicuous feature. Of these the following may serve as an example.

Mr. John T——, a very healthy old gentlemen of 72, has been under my care at times since 1881, his trouble being chronic eczema of the limbs, with liability to recurring attacks of erysipelatous inflammation of his face. His first attack was thirty years ago, when it was diagnosed as acute eczema by the late Dr. Elliotson. Since then he has had innumerable repetitions. He has often had them brought on by exposure to wind, as in grouse shooting. In 1884 I saw him during recovery from a severe attack which had covered his nose and eyelids, and caused the latter to swell up so as to quite close his eyes. Patches of eczema on his limbs were almost constantly present, and he kept by him a prescription of the late Mr. Startin's, which he considered invaluable when his eruption became pruriginous.* Mr. T—— had not himself ever had actual gout, but he considered himself inclined to it, and a brother had suffered much. He alleged that port wine always helped away his attacks of erysipelas-eczema of the face.

I have seen several cases like Mr. T——'s in all respects, excepting that the face in the intervals of the attacks never got quite well. In these the eczematous nature of the disease in the intervals was marked beyond dispute, but the acute attacks were sudden in onset, attended by much œdema, and attended, in fact, by all the conditions of erysipelas. In some of these cases I have attended the relations (children or otherwise) for common eczema.

A Case of Acute Vesicating Erysipelas-Eczema.

I saw with Dr. Hess, on Tuesday, Nov. 12th, an old lady, 64, with most acute vesicating dermatitis of both her arms (eczema-erysipelas). It was her second attack. I had myself treated her for a previous one a year ago, and she had in the interval been perfectly well. The history of this second out-

* The details of Mr. Startin's prescription—for those who may be curious in such matters—was Borax, ʒ½; Ammonia, ʒ½; Dilute Hydrocyanic Acid, ℥j; Glycerine, ℥½; in eight ounces of Rose Water.

break was of interest. The patient suffered from deafness and otorrhœa from her right ear, and probably in connection with this had had several attacks of giddiness. She was suffering from one of these, and was under Dr. Hess's treatment for it when the arms inflamed. The giddiness ceased when the arms began to burn, and it was at first supposed that there was some bond of association between them. The arms began to tingle from a little above the wrists, and both pretty nearly together. I saw them on the fifth day of the eruption. The hands, excepting that they were involved in œdematous swelling, were not affected. The redness began just above the wrists and extended continuously to a little above the elbows. It was of vivid tint, and attended by great swelling and tension. Everywhere, but especially in the lower parts, there were numerous and large clear vesicles like those resulting from a slight scald. I thought at first that some irritating application must have been used inadvertently, but I could not get any support to this suspicion. At the upper edge of the inflamed part the margin was abrupt, but it was that of erythema only, as in erysipelas, but broken up into little spots (lichenoid eczema). The inflammation of the skin was not confined to the arms. There were streaks of redness (lichenoid eczema) on the neck, and others on the fronts of the ankles.

No definite rigor had preceded this severe attack, but Mrs. S—— said she had felt a little chilly and creepy. She had not lost her appetite nor been feverish (Thermometer not used).

I prescribed for this patient—who was, it will be seen, in an acute stage—the tincture of aconite in ten minim doses three times a day, and with it a very liberal application of the lead and spirit lotion to the affected parts. I did not see the lady again, but Dr. Hess, who attended her, was kind enough to inform me that the dermatitis did not spread after my visit. Although we had forbidden wine and put the patient on a rather low diet, a short attack of acute gout in one foot occurred during the convalescence. The skin peeled when the eczematous inflammation subsided. Nothing can be more clear when we note the rapid and complete

subsidence of the dermatitis, than that it was not of the type of common eczema. The latter always shows a tendency to persist. The difference was also well demonstrated by the large size of the bullous vesications which developed. We must not be hasty in assuming because definite gout occurred during the recovery that therefore the dermatitis was gouty. It is very common for gouty persons to have an attack of podagra when laid up by any cause.

NOTES ON THE CANCEROUS PROCESS AND ON NEW GROWTHS IN GENERAL.

THE study of the cancerous process and of new growths may be, I cannot but think, much simplified for those who are able to accept, as probably true, a few fundamental propositions. Some of these I will endeavour to state, premising that the clinical evidence is, I think, very strong indeed upon which their probability rests.

1.—The cancerous process is very closely allied to one of chronic inflammation, and is very frequently preceded by changes, often of long persistence, which are not distinguishable from it.

2.—The essential feature in which the cancerous process differs from common inflammation is in that its activity has escaped the control of the organism in which it is manifested. There can be no stage of retrocession, whether under the influence of time or treatment.

3.—The condition of senility, whether of the part concerned alone or of the whole organism, is by very far the most important of those which favour the escape of local cell-growth from the controlling forces of the organism. It is in old persons or in old organs (the breast, for instance) that the cancerous process most usually begins.

4.—The peculiarities which we witness in special forms of the cancerous process are for the most part due to the special tissue in which the change originates.

5.—Next in importance to the influence of senility comes that of inherited peculiarity of tissue, and next to it of some local damage received.*

If these propositions are accepted, it will be seen that all

* An *Imperium in Imperio* is the most concise expression for a cancer, but it is applicable also to any local inflammation so long as it lasts.

search after a parasitic cause for cancer is beside the mark. Micro-organisms may be present, probably they are, and at some stages they may possibly assume peculiarity, but they are never the causes of cancer. The latter can originate in the senile under any of the ordinary causes of local inflammation.

It is very desirable in the study of cancer to separate what is common from what is rare. We must form our opinions by the examination of the evidence which comes to hand on all sides, not by that which is exceptional. In explanation of the latter, the laws of heredity must be called to our aid. In the category of the exceptional I would at once place all instances of cancer occurring in young persons, and am prepared to believe that inheritance is in all such cases at work.

It has been held that the infective property of cancer, —its tendency to travel up lymphatics and to become disseminated by the blood,—is a feature of difference between it and inflammation. I venture, however, to feel very confident that the more we study the various processes of inflammation, the more we shall feel assured that they are one and all in different degrees infective. Some travel by the lymphatic channels, like epithelial cancer and scirrhus (carcinoma); others by the blood-vessels, with tendency to general dissemination, as in the sarcomata. I have elsewhere, and repeatedly, tried to illustrate and enforce this doctrine by reference to traumatic periostitis, lupus, acne, boils, psoriasis, and many other maladies. Indeed, the assertion is definitely that all forms of inflammation are attended by the formation of a plasma which is in greater or less degree infective, and that they all tend to generalization just as cancers do. We have strangely overlooked the facts which favour this belief, and have supposed, perhaps a little thoughtlessly, that these maladies have a sort of potential or predestined completeness from their beginning, rather than that, as in cancer, each stage depends upon its predecessor.

In the narration of the facts and cases which are to follow I shall keep in mind the general creed just avowed, and shall endeavour to direct attention to its illustrations.

On the absence of Gland implication in Rodent Ulcer (Rodent Cancer).

A recent work on general pathology by a distinguished physician contains the following passage in reference to the exemption of the lymphatic glands in rodent cancer: "The lymphatic glands are rarely affected, but this exemption is perhaps due to locality, since other morbid processes affecting the same parts (lupus and ordinary suppuration, as impetigo contagiosa) rarely affect the glands. The lymphatic communications of this part of the skin appear to be scanty." I cannot but think that most of the statements in these sentences involve more or less of error. Lupus is a disease which, whether it occurs on the limbs, trunk, or face, very rarely indeed causes enlargement of the lymphatic glands, and it is more frequently, I think, attended by such enlargement when it occurs on the face than anywhere else. Impetigo contagiosa is a name for a malady about the nature of which we know very little. It is transitory and easily cured, before there has been opportunity for serious gland implication, and it is, as a matter of fact, almost always attended by temporary enlargement of them. As for common suppuration, it may be said that with inflamed hordeolum, or common stye, it is an almost constant observation that a lymphatic gland over the parotid just in front of the ear becomes irritated, and for a time enlarged. I have often in children had to open glandular abscesses near the ear in connection with sores about the eyelid, and sometimes the glands of the neck become implicated also. I do not believe that there is any peculiarity whatever as regards the lymphatic system of the face, which renders this region less liable than other parts to irritation of its lymphatic glands from absorption. It is far more probable that the peculiarity of rodent cancer in this respect depends upon itself. This is proved, I think, by the fact that when malignant ulcers resembling rodent of the face form on other parts of the surface they are, as when on the face, free from any tendency to gland disease. It is to be admitted that this occurrence is a rare event, yet we do witness it occasionally. Again, when the ordinary form of epithelial cancer attacks the face, it pro-

duces gland disease just as quickly as if it were located on other parts. This is especially true of cancer of the lip, but it is illustrated occasionally by cancer of the conjunctiva also. The probability seems to me to be that malignant action beginning in the skin of the face takes in virtue of the tissues in which it originates some peculiarity of growth, which makes it but little liable to affect the lymphatics. What that peculiarity is it is quite impossible to say, but no doubt it has to do with the especial elements in which it originates. I may admit that the fact raises in my own mind a strong suspicion that rodent cancer does not begin in gland tissues. Can we have a more remarkable fact than that if by local irritation of the prolabium malignant action be induced, it will take the form of common epithelial cancer and rapidly affect the glands; whilst if the true skin of the lip be the part first affected, however near to the prolabium it may be, the form of cancer originated will be that of true rodent, which will spread very slowly and will not affect glands. That the difference has nothing to do with the abundance or otherwise of lymphatic channels, we see proved, I think, by the fact that if rodent cancer, having begun on the skin, spreads to the prolabium, it in no wise changes its nature, and the freedom from lymphatic infection remains as before. A stamp of peculiarity is evidently given to the disease from its origin, and this it keeps throughout.

Exceptional conditions preceding Rodent Ulcer in the Face.

I have seen two cases of a peculiar spreading growth on the skin of the face, probably allied to cancer, but not presenting the features of either rodent ulcer or of the crateriform growth. Both of them occurred in ladies between fifty and sixty years of age, and they were exactly alike. In the first, a lady was sent to me from Chester because two medical men had differed in opinion, one thinking that the growth was of little consequence, and the other asserting that it was rodent ulcer. I had in the first instance been consulted by letter, a coloured portrait of the sore having been sent to me. Although I have used the word sore there was no real ulcer,

but simply a little elevated patch about as big as a fourpenny piece. It was well defined but not accurately round, and was placed on the left cheek, just beneath the inner canthus. Its surface looked slightly papillary, and a few thin epidermic scales adhered to it. Its centre was not depressed as is the case in a disc of rodent, nor was there the slightest trace of the roll of glossy induration which characterizes the edge of the latter. It looked more like a patch of sebaceous lupus than rodent, but was not so rough and dry as that affection usually is. It differed from the crateriform growth in not having attained any material thickness, and in not showing any tendency to break down in the centre. I thought that it was more nearly allied to this than anything else, and advised that it should be cut away with scissors and the base touched with the actual cautery. My only reason for not destroying it altogether with the cautery, was my wish to obtain the specimen for microscopic examination. Unfortunately my patient, before returning to her surgeon, who would have carried out my plan, fell into the hands of a specialist friend, who, not knowing the interest that had been felt in her case, insisted upon destroying offhand what he called a rodent ulcer with nitric acid.

My second case was a lady named S——, aged 50, who was sent to me in November, 1888, by Mr. Miller, of Stoke Newington. She had a patch exactly like the one I have just described on the left side of the bridge of her nose. It had been there for some years, and was increasing very slowly. Formerly it was liable to bleed if scratched, but it had given her no trouble, and it was the anxiety of her friends only which led her to take advice. It should be stated that her face had been much scarred by small-pox, which had occurred in early life. I advised that the little patch should be regularly painted with the liquor arsenicalis; but as this did not cure it, Mr. Miller very properly got anxious, and sent her to me again in March. I then found it in much the same condition, not raised more than a couple of lines from the surface, quite free from induration, and presenting none of the characteristic features of rodent as regards the edge, &c. As in the previous case, it was covered with peeling flakes of epidermis, and

when these were removed its surface was seen to be finely granular. As the patient had a great objection to anything in the way of excision, I painted the patch freely with nitric acid. My interest in these two cases, which are examples of an apparently insignificant condition, is chiefly in connection with the fact that they probably afford us a connecting link between chronic inflammation and malignant action. It will be seen that both patients were at the cancerous age. There was nothing in either to distinguish the morbid process from one of chronic inflammation. But the isolation of the patch and its slow tendency to spread were features in which it approached the type of malignancy.

In recording these two cases I may be permitted a remark upon the value of careful descriptions of the very earliest stages of surface new growths, accompanied wherever possible by microscopic examination. I am sorry that in neither of the above was the latter practicable.

Notes on Warts and Papillary Growths.

Every one must have been struck at times to observe the remarkable tendency of warts to disappear of themselves, and that with extreme rapidity. A medical friend vouches to me for the literal truth of the statement that a young girl under his observation had her hands much disfigured by warts and that in the course of *a very few days*, and he believes without special treatment, they wholly disappeared. No recurrence took place. The mother of this girl subsequently died of cancer of the breast.

I was myself in boyhood familiar with the fact that warts would go away, but I do not recollect any instance so definite as the above, and in most cases some kind of treatment was usually being tried. During my professional life all cases of warts which I have been shown have, as a matter of course, been prescribed for. So remarkable have some of the instances of rapid cure been, that I have been in the habit of speaking of "frightening" them away. In one case a young gentleman had his face literally covered with warts. They had been present many months. I touched a few of them with the acid nitrate of mercury; not nearly all, for they

were too many. All, however, straightway vanished. In the course of a few weeks he was absolutely free, and remained so ever after. Several very similar cases have fallen under my observation. A little boy of four was brought to me with his face and hands covered with low papillary growths. I gave his mother some liquor arsenicalis, and told her to touch the warts every morning with a camel's hair pencil dipped in it. It is to be noted that the child had already been under several methods of treatment, but the little growths were so numerous that their true nature had not been recognized, and no external treatment had been adopted. Under the arsenic-touching treatment all the spots had quite vanished in about a fortnight.

The following memoranda respecting warts seem worthy of being kept in mind :—

Warts seldom occur in large crops excepting to young persons.

The foliated wart is almost restricted to the young, or at any rate to those under middle age.

If elderly persons get papillary growths on the skin they are seldom foliated, but usually low, hard, and flat-topped.

Elderly persons are, however, liable to foliated (often pointed) papillary growths on mucous membranes; in the mouth chiefly, but now and then in the anus.

There appears to be some association between the tendency to warts and the liability to cancer. The children of cancerous parents often suffer much from warts.

The hands are the parts most frequently affected by warts, next the face and scalp.

The lower extremities hardly ever grow warts. Excepting in connection with lupus or elephantiasis, I do not know that I ever saw warts on the feet.

Warts are not very common on the genitals, excepting as a sequel of some venereal inflammation (true chancre, soft sore, or gonorrhœa).

Common balanitis seems to have little or no power in evoking warts.

Persons with fat, flabby, cold hands do not easily grow warts, nor are the latter often associated with liability to chilblains.

It is an unquestionable fact that the presence of the poison of syphilis in the blood may cause papillary hypertrophies in the form of common warts. These may be seen in the genitals, but still more conclusively in the middle of the tongue.

In cases of cancer, especially of the breast, I have repeatedly seen the whole trunk covered with low warts.

The typical foliated wart seldom shows any tendency to take on cancerous characters, and the more perfect its development the less may be said to be the risk.

It is highly probable that one wart produces others, and so on by a process of infection.

On Cancerous Ulcers which assume a condition resembling a healthy, florid, granulating surface.

Mrs. Garrett Anderson (M.D.) was kind enough to ask me to see a case under her care at the Women's Hospital which was of great interest. I was told that it was a question of diagnosis between "lupus of the vulva" and epithelial cancer. For my own part I felt no doubt that it was an example of the latter disease, but its features were certainly very peculiar. Its peculiarity consisted in its being surrounded by a wide border of soft granulation structure. It was only in the middle of the patch that there was anything which was in the least hard. At this part there was a disc about the size of a halfpenny, which, although like the rest clean and florid, was very firm, and the surface of which presented a minutely granular aspect, like a portion of cauliflower bud flattened out. It was the induration of this disc and its characteristic appearance which made me feel quite confident in the diagnosis of cancer. I may add that this diagnosis was confirmed by the presence of some slightly enlarged but very hard glands in both groins, as also by the patient's age, which was near upon sixty.

The disease in this case had existed for about a year when I saw the patient. It may, perhaps, be best described by saying that the left part of the mons, the whole of the parts about the clitoris, the left labium, and the adjacent skin, were involved in a level mass of florid granulations, which were

raised at least a quarter of an inch above the surrounding parts. These granulations were everywhere suppurating freely, and they were everywhere clean and healthy. The margins of the patch were quite abrupt, and there was no congestion of the adjacent skin. On opening the labia it was seen that the diseased condition did not extend far upon the muco membrane of the vagina, but its margin at this position w rather less abrupt than on the skin. Near to the clitoris th were a number of little polypoid developments; but nowh was there anything in the least warty. There was not slightest fœtor from the sore, nor any unhealthy dischar but this was perhaps due to the great attention which been paid to the dressings. Everywhere, with the excep of the middle disc, which I have described as being indura the granulating surface was as soft as it could possibl In this respect it exactly resembled the conditions of sores in the groins in the case of Mr. which I described as an example of "Granuloma

Mrs. Anderson excised the parts very f ays the above notes were taken. Two month to that the woman had recovered well, but some suspicious enlargement of the gland

A portrait from this case is preserved the College of Surgeons. A careful micr by my eldest son showed the presence of (cancerous) structure in all parts.

We are so much accustomed to asso surface and foul discharges with malign I think it important to ask attention to t ous surfaces may sometimes granulate l quiet, and assume an appearance which is like that of a healthy sore. The unfounde cancerous sores show an unhealthy surface to errors in diagnosis which are most detrim interests of the patient. Not only is it the fact tha ous sores may at times, and under certain modes of made to assume clean and healthy surfaces, but t believe, certain cases in which, from its beginning to the ulceration spreads with the simultaneous product

tion and some induration. It was impossible to assert anything confidently as to this patch. There was nothing characteristic of cancer. In the right groin, or rather in the cleft between thigh and pudendum, was a patch of chronic eczema.

As regards the leucoderma, I should regard it as highly probable that the woman had made a mistake in her observation, and overlooked its early stages. Probably it had been slowly advancing for many years. It was an ordinary example of the disease, remarkable only for the extent over which, on the trunk especially, the bleaching had spread. There is probably no reason for thinking that it has any connection with the cancer. The woman had of late suffered much from pain in her back.

Whether the sores on the arm and in the groin had anything to do with the cancer was a question which, wher I first saw the patient, could not be conclusively decided. I thought that they had not, and the result of treatment proved it. Mr. Waren Tay was kind enough to admit the patient under his care into the London Hospital, and under his treatment the sores in the arms soon healed. Numerous scars were left. The conditions of these ulcers was so peculiar and so apparently causeless, that Mr. Tay was even induced to suspect that they had been caused intentionally by snipping out portions of skin. If this were so, we have indeed a remarkable illustration of the remark that those who produce factitious diseases are almost always the subjects of some real malady. Here we have a poor creature, the subject of double cancer and of what appeared to be to her a formidable skin affection, not content with her realities, but seeking to evoke sympathy by artificial means. Although I by no means consider the diagnosis established, I must admit that the manner in which the sores healed when the woman was under hospital supervision strongly corroborated it.

I received from Dr. Scott, when the patient was sent up, very full notes of the case, and outline portraits showing the extent of the leucoderma. The tumour of the right breast had in the first instance been diagnosed as an adenoma. Dr. Scott confirmed the patient's impression that the pigmentary

changes were of recent development, and had commenced subsequently to the first operation. In the first instance the case had been regarded (as in fact leucoderma almost invariably is) as an example of increased pigmentation, and not of blanching. There could be no doubt that in some parts, especially in the genitals, there was proof of increase of pigmentation in those areas which remained dark. Parts of them were indeed almost black. I have noticed this condition of black discoloration of some parts with blanching of others in several other cases of leucoderma of the genitals in men. In all leucoderma cases the contrasts in colour are always, I think, greatest on the genitals. For the most part and in most cases, I believe that the suspicion of increase in pigmentation on the unblanched regions in leucoderma is a mistake in observation. Sufficient allowance is not made for the effect of contrast. The patient invariably asserts that it is the brown tint that is new, and that the skin was not originally of that colour. Very often the contrast is so strong that most observers agree with the patient, and think it impossible that the original tint could have been so dark. If, however, the white patches be covered and the effect of contrast prevented, then, with due allowance for the fact that the patient is probably of dark, swarthy complexion, there is nothing very remarkable in the depth of the brown tint. In some few cases, however, and in some special regions, I must admit that there is proof of real increase of pigmentation. Of this the present case is one of the most definite which I have ever seen.

NOTES ON SMALL-POX AND VACCINATION.

WHOEVER is familiar with the older literature of vaccination must have been impressed with the belief that our forefathers regarded it as a much more serious affair than we wish to, and were prepared to encounter risks and inconveniences against which we rebel. They lived nearer to the small-pox days, and had not forgotten their horrors. That the vaccination sores should inflame somewhat severely they were prepared for, and Jenner even spoke of "erysipelas" as being usual. That he did not mean erysipelas in our definite sense of the word we may well think, and yet believe that he expected much more inflammation than we are accustomed to see. So also as regards enlargement of glands in the armpit; they were accepted, even at no very distant day, as almost a matter of course.* A general vaccinia erruption was also apparently more common than it is now. Dr. Gregory's description of it is very full, but I have spoken with well-experienced operators who were unwilling to admit that any exanthem-like eruption ever did occur as part of vaccination. These facts may be held to indicate the probability that the lymph now in use has become sensibly weakened, and the practice of re-vaccination is more than ever important, the period of protection tending to become shorter and less complete.

The terms of gratitude in which Jenner's discovery was spoken of fifty years ago were indicative of the feelings of men far more familiar with the curse which had been got rid of than we are. I read the other day, in an old zoological

* In one of the cases which I reported in my last number, the presence of an indolent gland in the armpit was one of the facts which was held to be suspicious of syphilis. It would have been held to be the proper thing half a century ago.

work which enumerated the benefits derived by mankind from the domestication of the ox, the statement that "the cow has now acquired something of a sacred character from the blessings which through her have been reaped in the extermination of human disease."

Dr. Gregory's Description of Vaccination Lichen.

"It is not uncommon," says Gregory, "to find the child's body covered generally or partially with a papulous eruption of a lichenous character from the ninth to the twelfth day or even later. It is seldom seen in adult vaccination, but is frequent in children full of blood, in whom numerous vesicles had been raised which discharged freely. Vaccine lichen, as this eruption is properly called, often occasions great anxiety in the mind of the parent, from a suspicion that small-pox is coming out. I have seen it in such intensity as to be followed by minute vesicles; but this latter appearance is very rare. It is an accidental occurrence, chiefly attributable to the peculiar delicacy of the child's skin and fulness of habit. Like the constitutional irritative fever, it indicates that the disease has taken effect on the system; but it is not deemed essential to the success of the process."

Suggestions as to the Explanation of the Supposed Increase in the Mortality Rate of Natural Small-pox.

The much increased danger attending natural small-pox at the present time as compared with pre-vaccination times may be explained in different ways. In the first place it is both possible and probable that there is great exaggeration in the statement of difference. The statistics of the last century may be quite untrustworthy. If, however, we may assume that it is true that small-pox in the unvaccinated is at present a more severe and fatal disease than it was in populations no part of which had been submitted to vaccination, it is still possible to suggest a plausible explanation. It is universally admitted that all specific fevers are more severe and fatal in virgin populations, or,

in other words, amongst those who in previous generations have not suffered. It is probable that an attack of a specific fever not only for the most part exempts the individual from another attack of the same, but also influences for good his offspring. The children of such parents, although liable to the disease, are not liable to such severe attacks as others. Now it is fully admitted that an attack of small-pox exercises a better and far more lasting protective influence than does vaccination. Those who have had small-pox very rarely indeed suffer from a second attack; on the contrary, a large majority of those who have been vaccinated in infancy become liable after puberty both to the infection of small-pox and to re-inoculation of vaccine. It is therefore clear, since re-vaccination is unfortunately not the rule in England, that a large proportion of children are born to parents who have themselves outworn the protection of their infantile vaccination. Such children will probably inherit but a very minor degree of modification of constitution as regards susceptibility. In the past century (pre-vaccination times) a large majority of the population suffered from small-pox, and this mostly in early life. Thus most children would be born to parents one or both of whom had passed through the disease. It is clear, then, that at present, after three generations of general vaccination and an enormous diminution in the prevalence of natural small-pox, there must be a large general reduction in what may be called hereditary protection. We are passing into the condition of a virgin community so far as small-pox is concerned, and possibly approach the kind of liability which was exhibited by North American Indians and other native tribes when they first received the contagion. If this be so, it is further clear that those who refuse vaccination amongst a community in which the practice of vaccination is common, incur in case of infection with small-pox a far greater danger than was the case in the community of the last century. In return for this augmentation of danger they share in the common advantage which general if not universal vaccination gives as regards the diminished risk of being infected. It is far less probable that they will be infected than it was in the eighteenth century; but should they be so, they will

probably suffer with much increased severity. It is obvious that the fact stated, and its explanation, constitute a very strong argument indeed in favour of re-vaccination.

The Statistics of the Small-pox Epidemic in Sheffield during 1887–1888.

The proportion of attacks in the vaccinated population was 1·62 per cent.; in the unvaccinated population, 15·68 per cent. The proportion of deaths in those attacked was, in the vaccinated 4·7 per cent.; in the unvaccinated, 31·1 per cent. Thus it would appear that in case of small-pox prevailing in a mixed population the unvaccinated are in ninefold danger of being attacked, and when attacked incur sevenfold greater risk of death.

I take these figures from the admirable report prepared for the Local Government Board by Dr. F. Barry (see pages 194 and 196).

On "Insusceptibility" to Vaccination.

From Dr. Barry's report I also take the following in reference to the important subject of insusceptibility to vaccination. It would seem very probable that there is no such thing as real insusceptibility, and that the correct phrase would be "difficult of inoculation." I am acquainted with a lady who in infancy (sixty years ago) was reported "insusceptible." Yet she took natural small-pox, had it very severely, and was left dreadfully scarred.

"From the above table it will be seen that of the 57,532 children vaccinated by the public vaccinators of Sheffield only 1, or 0·002 per cent. of the whole, was certified to be "insusceptible" of vaccination, whilst of the 33,886 children vaccinated by private vaccinators, 96, or 0·284 per cent., were certified to be "insusceptible" of vaccination. There can be little question that the failure on the part of private practitioners in so large a number of cases to obtain successful results was less due to want of skill than to the use of stored lymph, whilst the uniform success of the public vaccinators was due to the fact that they were always able to

vaccinate from arm to arm. In the sub-district reports it will be noticed that cases returned as "insusceptible" of vaccination were in some instances subsequently vaccinated successfully, and from the death returns it will be seen that two persons who had been certified to be "insusceptible" of vaccination died of small-pox" (from page 186).

On Second Attacks of Small-pox.

The following quotation, which I again take from Dr. Barry's report of the Sheffield epidemic, is of much interest in reference to the occurrence of second attacks of small-pox. The facts given prove that second attacks are not of extreme rarity, and make it probable that certain persons are by idiosyncrasy peculiarly susceptible to them. Referring to a table which is given, Dr. Barry writes:—

"It appears that 18,292 persons, or 6·6 per cent. of the enumerated population of the borough of Sheffield were stated to have suffered from small-pox prior to 1887, and that in 23, or 0·13 per cent., second attacks occurred during the present epidemic, of which 5, or 0.3 per cent. of this 18,292, proved fatal. A detailed account of each of the 23 cases will be found in the sub-sections referring to the several sub-districts. Thirteen of the 23 had been vaccinated in infancy, whilst the remaining 10 had never been vaccinated. In 14 the second attack of small-pox was very mild, and was not followed by pitting. Two persons, aged respectively 35 and 20, who had suffered from attacks of small-pox in 1865 and 1872, had second attacks more severe in character, though not followed by pitting. A person aged 44, who had had a severe attack of small-pox in 1870, followed by blindness, had a second attack, also severe in character, and followed by much additional disfigurement. A person aged 19, who had suffered from small-pox in 1871, had a second attack, which was severe in character, and followed by considerable pitting. Other five persons died of their second attack of small-pox. It is remarkable that five second attacks of small-pox should have proved fatal, whilst only one attack did so in a revaccinated person. It is also noteworthy that

0·13 per cent. of the persons who had suffered from small-pox prior to 1887 had second attacks during the present epidemic."

It is possible that the idiosyncrasy which involves liability to second attacks of one specific disease may extend also to others. I published many years ago a case in which a gentleman passed through two attacks of syphilis, both of them under my own observation. This gentleman had also had two attacks of small-pox, although he had been vaccinated. Neither of the attacks were severe, nor have either of his outbreaks of syphilis left any sequelæ. It is twenty years since the last, and he is now in good health.

It is now a well-established fact that second attacks of syphilis are not very infrequent. I believe that even third attacks may occur.

Re-vaccination and its Results.

During the epidemic in Sheffield there were 830 soldiers in barracks, all of whom had, in accordance with army regulations, been re-vaccinated. These men were allowed to visit their friends without restriction, and the barracks were in the part of Sheffield first affected by the disease. Of the 830 twelve only contracted small-pox, or 1·4 per cent. Of these one died. Inquiry elicited the remarkable fact that in all the twelve cases the re-vaccination had been unsuccessful. No single soldier who had been successfully re-vaccinated contracted small-pox.

There were 372 policemen in Sheffield during the epidemic. All had been vaccinated in infancy. Ten of these contracted the disease prior to February, 1888, when all were re-vaccinated. After the re-vaccination none were attacked (see page 205).

Of 290 men and boys employed in the post office, all of whom, in accordance with regulations, had been re-vaccinated, not a single one contracted small-pox in any form. It is obvious that they would run special risks as regards exposure.

ON CERTAIN LOCAL DISORDERS MORE OR LESS COGNATE WITH RAYNAUD'S MALADY.

The original name for the group of symptoms which we now know as Raynaud's Disease was "Symmetrical gangrene of the extremities." We may suitably keep this in mind, as it will help us to remember what is the culminating feature of the malady. As a matter of fact, gangrene occurs only in a very small minority of the cases; only, in fact, in the most exaggerated examples. We have widened the definition, and made it include all marked forms of liability to recurring derangements of the circulation in the extremities which are marked by defective arterial supply. With perhaps scarcely an exception, we still insist upon symmetrical development of symptoms as an essential feature, and in doing so we imply that the conditions induced depend upon general and not upon local causes. Obliterating arteritis may lead to gangrene, but it is not Raynaud's disease, and may be one-sided—indeed usually is so. Senile gangrene again depends upon defective arterial supply, but it is caused by permanent changes in the arteries. It is not paroxysmal, and it is not often a symmetrical disease. Whatever may be the case in its later stages, one primary conception of Raynaud's phenomena must, I think, be that they are manifestations of functional derangement. We trace them upwards in all gradations from conditions which can barely be considered in excess of normal states, up to the more extreme developments which are attended with risk of gangrene. Every one is liable, though in very various degrees, to have the hands, ears, nose, &c., become blue when the body has been unduly exposed to cold. In all, the stage of blueness—which is marked very differently in different persons—shows, if the cause be continued in operation, a tendency to pass into whiteness.

The first is the so-called stage of asphyxia, the latter of arterial spasm, and both are due to a narrowing of the calibre of the arteries under reflex stimulation, or rather possibly of inhibition. Thus all persons may be said to be potentially the subjects of Raynaud's malady, but we do not give the name until the proclivity, normal at first, has become so much exaggerated as to induce definite inconvenience and amount to a disease. In the later stages changes may have occurred in the nerves, the results possibly of neuritis; but in the beginning, I repeat, we must regard the disease as functional.

It is not to be wished that the term "Raynaud's disease" should be widened so as to include cases of a different character to those which he described. It is, however, essential to correctness of thought and accuracy of classification that we should recognize other results than a tendency to gangrene, as allied conditions. It may not be too much to assert broadly that all changes in the circulation and nutrition of the extremities which are brought about by the nervous system, and which occur in the extremities, because they are peripheral, and at a disadvantage as regards the influence of cold and their supply of blood, are, in essential nature, allied to the disease in question. The changes in nutrition thus caused are not always characterized by a tendency to gangrene. The peculiar proclivity mentioned may in some cases exist in a sort of partnership with other disease-producing influences. Thus it may be associated with tendency to chilblains, or to gout or rheumatism, or to eczema. A malady which I described many years ago under the name "last-joint arthritis," and of which the peculiarity is that the terminal joints of all the digits become disorganized, is probably a partnership between Raynaud's proclivity and inherited gout. Many cases of diseased nails and of chronic eczema of the ends of the fingers are probably in part due to abnormal susceptibility of the arteries to the influence of cold. Nor must we restrict our attention to the ends of the digits, for it may be the palms and the soles, or even parts still higher up which have their nutrition disturbed under the same proclivities. The nose and the ears are generally included in the term ex-

tremities, and to them I would venture to add the lips. The lips, as is well known, easily become blue with cold, though not so readily white; and although they are not liable to gangrene, yet it is not improbable that the cracked and peeling conditions which are often very troublesome in delicate persons, are states which are brought about chiefly through the agency of disturbed circulation. My desire is not to in the least alter the accepted meaning of the word, but to gather around Raynaud's malady a family group of other conditions cognate with it.* Of such I will now proceed to relate some examples.

An example of Nasus Mortuus, being an instance of very remarkable liability to painful coldness of the nose with lividity (Asphyxia of Raynaud). Possible influence of previous attacks of Intermittent Fever and of Quinsy. Influence of air in motion more marked than that of either heat or cold.

The subject of the following narrative is Miss E. R——, aged 25, a dressmaker. She was sent to me for observation by my friend, Mr. Benjamin Clark, of Clapton, who had taken great interest in the very curious phenomena which she presented. The chief of these was a liability to have her nose "die" in the same sense and manner that many persons are liable to dying of the fingers from exposure to cold. Her nose used to become cold on the slightest provocation.

It will be seen that the condition of dying of the nose to which she was liable was not attended by the tallowy pallor which mostly occurs in cases of what is known as "digiti mortui." It was rather the delayal of venous circulation, which Raynaud has named asphyxia, and which usually precedes the stage of pallor.

The following somewhat fragmentary notes were written during the girl's first visit to me.

Miss E. R—— is pale, and not very well developed. She

* For the fullest information as to Raynaud's Disease, the reader is referred to a volume published by the New Sydenham Society. The translations, &c., are by Dr. Barlow.

states that her menstruation is always behind time, but rather profuse. Her pharynx is mammillated, but the tonsils are not materially enlarged.

She is liable to catarrhal attacks, and when she has a "running cold" her nose, she says, keeps warmer.

When 12 she had an "intermittent fever." She had another illness ("low fever") two years ago, but this was two years after she had become liable to "cold nose."

The cold nose first came after a very bad attack of quinsy. She had had about ten bad quinsies; the last and worst attack was when she was nearly 21. She was very ill, and for seven days could take nothing but a little fluid food. She was made very weak, and never afterwards quite regained her health. It was not, however, till a year after this that her liability to cold nose began. It was in January that it began, and her first attack was after she had been out on a very cold day.

The nose is now always worse in winter, but its liability to die is never wholly absent even in summer. She is not liable to cold hands or feet, excepting in winter weather, and even then they do not suffer much. She has formerly had slight chilblains, but not bad ones. She says that her nose is never the same more than two hours together, unless she keeps absolutely still. Movement is the influence which she chiefly blames for causing the coldness. She has known it to become very cold on a very hot day. Her hands are not mottled.

There are not any very visible changes in the nose when cold, excepting that it becomes "of a bluey-red." When warm it is pale. No rubbing will warm it, nor do hot rooms prevent the attacks. It is very painful to her when it is cold. The coldness is not limited to the tip, but includes the whole nose from the root. During the time when she was ill with fever, it did not become warm even in bed, although there was a fire in the room.

She dare not go to the seaside on account of the pain caused. "It was dreadful once at Brighton, and I was glad to come home." She dare not take a bath, or wash in cold water. She has never been liable to "dead fingers." Even in summer, if she moves across the room her nose will

become cold when it has been warm whilst sitting still. It is always cold when she goes to bed, but slowly gets warm afterwards. If, however, she turns in bed it may become cold again.

It is a very variable phenomena, may be present for ten minutes and then gone again; "there is no dependence on it." I wanted her to go out into the street and let me see it cold, but she said that it might from the excitement become warm again as soon as she came into the house. Yesterday, when she got out of bed it was all right until she put her feet on the floor, then it became cold. It remained cold for a quarter of an hour, and then, whilst busy, it remained warm. Soon after three, just as she was preparing to go out, it became cold, and remained so till five and until she had half finished her tea; then it became warm, and soon afterwards became cold again, and continued so until she had been some time in bed.

Ever since the last fever she has been "a chilly subject," but was not so before it. She has been liable since the fever to have horripilation in her arms and legs; the skin goes "goosey." Any emotion will cause it. The sensation runs, she says, "all round from the waist and down all the limbs."

It may perhaps appear to some of my readers that in the above narrative I have devoted much attention to a trivial symptom. I do not think so. The case has much value as a rare example of extreme exaggeration of a proclivity from which many persons suffer more or less. It illustrates important laws both in physiology and pathogenesis. We have first the fact that the girl's nervous system had been enfeebled by intermittent fever and the semi-starvation induced by a bad quinsy. Probably she had congenitally a somewhat feeble circulation, and she was of the female sex, unmarried, and liable to too profuse menstruation. We may assume as a probable fact in anatomy that there are certain local arrangements of the vaso-motor system by which the circulation is regulated in certain parts, and which may become the seat of disease. The disease in this instance was probably not structural in any marked degree, but partook rather of the nature of pathological habit, or remarkable proneness to

disturbance of function. Although we are obliged to invoke the supposition of peripheral damage to explain the local limitation of the phenomena, yet we must remember that in the excessive proneness to horripilation we have proof of general enfeeblement and irritability of the nervous system of the skin. The girl was certainly below par as regards her nerve tone. Although I do not know that I ever before encountered a case in which the proneness to cold nose had become a source of annoyance to the patient, yet no doubt there are various degrees of liability. In cases of permanently dry mouth (xerostomia), we have to deal with an exaggeration of what in lesser and temporary forms is a very common physiological liability. It is just so in the present instance, and the case must stand, with many other forms of disease, as an instance of the morbid exaltation to an almost grotesque height of a natural endowment of the structures.

The treatment which I advised was the long continued use of arsenic and quinine, in the hope of giving vigour to the enfeebled vaso-motor system. With this was to be combined the use of electricity as recommended by Raynaud for the parallel liability in the extremities.

A Case of severe and long-persistent summer Prurigo, affecting only the exposed parts.

Mrs. C——, the wife of a clergyman, offers a very good example of a long persisting summer eruption. It takes the type of a papular prurigo, and has been so named by several authorities. With one temporary exception it has always been limited to the exposed parts. Her face, neck, and hands, with lower parts of forearms, are covered with papules, and the skin, from the long-continued irritation, has undergone a certain amount of thickening, and is rough and coarse. Although always much worse in summer, the eruption does not wholly leave her in winter. She has naturally an irritable skin; gnats bite her freely and cause much annoyance. Sea air always irritates her face. In the summer she has, she says, often had the face much swollen. Her eruption has caused her great distress, and beginning

with Sir Erasmus Wilson twenty years ago, she has since then been under a succession of specialists without much benefit. Her condition when she consulted me in October, 1889, is well shown in the two drawings which were taken for me by Miss ——. These drawings show the whole face covered with erythematous papules, and her hands and lower parts of forearms in like condition. The papules are rather ill-defined, but there is no general eczema. The restriction of the papules to the exposed parts is most definite. Her features have been somewhat altered by the thickening of the skin. Her feet are affected much like her hands, but not so severely.

Mrs. C——'s history is that up to the age of seven she had a very clear skin. She then went on a visit to a farmhouse during a very hot summer, and returned home with her face, &c., covered with eruption, from which she has never been quite free since. On her hands blisters not unfrequently form, but on the face the condition is never more than erythema with swelling. She never suffered from urticaria, and has not had chilblains badly. Her mother was formerly a great sufferer from chilblains. On one occasion the eruption spread to the body (during summer), but it only lasted there for a month. Mrs. C—— is liable to bad catarrhal attacks, and has twice had pleurisy. Not long before her visit to the country, when the disease began, she had suffered from a bad attack of measles, followed by jaundice. She has been twice vaccinated, and on neither occasion did any prurigo follow.

Mrs. C——'s case much resembles the examples of what I described some years ago as prurigo adolescentium, but it has persisted longer than usual. I have recently had under observation two other examples of the same in ladies of adult age, both about 30. One of these, Miss I——, has had her eruption from childhood, and the other, Miss ——, sent me by Mr. Jessop, of Leeds, gives an almost similar history. In neither has the eruption been so severe as in Mrs. C——, and both have much benefited under treatment.

A type-case of extreme susceptibility to the influence of sun-rays. Erythema of face and hands invariably produced by exposure.

I am indebted to the zeal of Mr. Lewis Mackenzie, of Tiverton, for the opportunity of recording the following very remarkable example of susceptibility to the influence of the sun. On two occasions Mr. Mackenzie sent the patient up from Devonshire in order that I might have an opportunity for observing her ailment. The latter consisted in an entire inability to bear the slightest exposure to sun without having her face and hands become suffused with erythema. Miss C—— is a lady's-maid, aged 28. She is florid, comely, and of healthy aspect. She is not in the least hysterical. Her liability to suffer from erythematous swelling of the face and hands on exposure to the sun has been present for three years. It began, she says, suddenly, in consequence of a slight blow from a whip lash whilst driving in an open conveyance on a very hot day. This raised a wheal, and on reaching home on this occasion her face swelled, and she has never since been able to bear the slightest exposure. As a child, she could bear both sun and wind. She has, however, often had chilblains, and her feet are habitually cold. She can take a cold bath without feeling unduly chilled. That which she cannot bear is simply exposure to the rays of the sun. It does not matter whether it is winter or summer, if the sun is allowed to shine on the face or hands, erythema and swelling are the speedy results. She is always well on cloudy days, and on sunny ones so long as she remains indoors. The erythema always begins on the part first exposed, but it will rapidly travel to others. On one occasion, at Mr. Mackenzie's suggestion, she tried the effect of exposing one foot to the sun, and it swelled and became red just as her hands were accustomed to do. If she keeps her hands covered they are safe, and for this purpose the thinnest gloves suffice. The erythema is attended by burning and great irritation, and each attack usually lasts an hour. In winter the hands may become dusky, but in summer they are of a vivid red. After the swelling has passed off, there is usually a powdery desqua-

mation of the parts which have suffered. After an attack she generally has a bad headache and cannot sleep. The attacks usually affect her sight and make her eyes weak and watery. So extreme has become her susceptibility, that she never ventures voluntarily to expose either her hands or face even for the shortest time to the influence of the sun. The glare of a fire she can bear as well as other people. It makes her cheeks flush, but does not cause the tingling, swelling and spreading redness which invariably follow exposure to sun.

I asked her what would happen if she continued to be exposed to the sun after the attack had begun. She replied that it was attended by so much irritation and headache, that she thought if long continued it would drive her mad. As it is, the attacks often make her feel bewildered and as if her head were on fire. She has never had more than one attack in a day. On the first occasion that Miss C—— called on me there was nothing whatever to be seen, and I thought that she was exaggerating her sufferings. On the next, however, it was a bright sunny day, and she walked in the air with her face exposed for a quarter of an hour, just before coming into my room. There was no mistake about the reality of the condition. A violet-tinted erythema had begun on the upper parts of her cheeks, and had extended over her nose, eyelids, and forehead. Whilst she sat before me it spread rapidly over the whole face, ears, and downwards on the neck. She said that it was attended by a feeling of stiffness, with burning and intense irritation.

As already stated, Miss C—— appeared to be in good health. She was liable, she said, to cracked lips, and often had her mouth unnaturally dry.

COMMENTS ON THE CASE.

I give this case as a type example of the class to which it belongs. Many more or less similar come under observation from time to time, but not many in which the phenomena are so simple and definite. It will be observed that the liability was an acquired one, and that it did not exist in the slightest degree in childhood. It must take rank as a sort of patheological habit. Although the phenomena evoked were very

different from those in the case of nasus mortuus, yet both probably depend upon an acquired susceptibility of the local vaso-motor system. In the one case arterial paralysis and dilation resulted; in the other, arterial spasm and venous turgescence. The one is in some sense the converse of the other.

On a future occasion I shall have to ask attention in more detail to the general influence of sun and summer temperatures, in producing inflammation of the exposed parts. There are cases in which summer produces not only erythema or eczema, but a very severe vesicating dermatitis, with large ulcerations followed by scars. One such I have already published in last year's Clinical Society's Transactions, but I have one or two others yet more marked to follow.

The case just narrated helps us to the comprehension of these more severe ones. In it we see definitely proved the power of the sun to evoke erythema, quite independently of any special over-heating, and we note that it was wholly different from the much greater heating power of a fire. In the summer eruptions, also, it appears very probable that it is rather the active influence of the light-rays which evokes inflammation than any heating power. In this matter some important and very ingenious experiments by Dr. Bowles, of Folkestone, as to the influence of the sun in mountainous districts, and especially in snow, in causing blistering of the face, come to our aid. It is clear that in studying the causes of local skin inflammations we must seek to find detached examples of the power of each influence separately. In some persons the heat of a fire will cause erythema, or eczema, when exposure to the sun can be borne well. In others the sun irritates and fire heat does not. In some the exposure to wind or to cold is injurious, and the skin is comfortable only when the weather is warm. Again we may note with interest the very different results which ensue in different individuals from one and the same cause. In some, sun and wind (or perhaps sun alone) cause freckles, whilst in others erythema or eczema, with vesications, result. The extreme development of such affections we see in the disease known as "Xerodermia pigmentosum," or better, I think, as "Kaposi's Malady." If

we would understand these complicated diseases we must try to analyze the causative influences at work; and as presenting us with a very definite example of one of them, the case which I have narrated is, I think, of much value.

Long and deep fissures in the palms and soles persistent for several years. In association with enfeebled circulation and Hysteria, in a delicate young lady.

The distressing affection from which Miss R—— suffered was the formation of deep and inflamed fissures along the lines of flexure in her palms and soles. There had also occurred occasionally sores in other parts. The fissures were so painful as to disable her from the use of both hands and feet. There was no general inflammation of the skin either of the palm or sole, but simply long lines of fissure with slightly hardened edges which took precisely the position of the normal creases, crossing more or less obliquely from side to side. In each palm there had been three of these, but those in the right had healed. In the soles they were less regularly placed and more numerous. The fissures caused great sense of pain when the hand was opened. In addition to these fissures there was inflammation of all the nails of the toes, with slight suppuration under them (a mild form of sycosis of the nails). This, however, had come on subsequently to the formation of the fissures in the skin. A yet more recent addition to the case was the formation of a transversely oval ulcer exactly on the front of the left knee, and of a similar one on the back of one of the middle joints of the right ring-finger. These ulcers, I was told, had begun as two or three parallel transverse fissures which had coalesced. It is to be repeated that there was not the slightest tendency to diffuse inflammation of the skin anywhere, the disease being closely restricted to the parts named, and the adjoining skin being pale and perfectly healthy. Her fingers were taper and thin, and her nails were not affected.

Miss R——'s affection had begun by cracks in the palm of

one hand (the right) about a year and a half before I saw her, and although she had had a great deal of careful and very judicious treatment, these cracks had never healed. They began in winter, and although they improved in summer did not get quite well, with the exception of the left palm. It was not until six or eight months later that her feet suffered.

As to Miss R—— herself, she was a fair-skinned, somewhat delicate-looking lady of a highly nervous temperament, but of remarkable intelligence and of a bright and cheerful disposition. Her age was twenty-seven. Although at the time of my first visit the hands were not cold, and there was no very obvious feebleness of circulation, and although she asserted that she was by no means a chilly subject, yet she had suffered somewhat from chilblains in childhood, and I have no doubt that there was a decided tendency to unequal distribution of blood in the extremities. Her feet and hands would become icy-cold and blue on the slightest exposure. The limitation of the disease to the lines of fissure was so peculiar and so definite, that the suspicion crossed my mind for a moment that she might have produced or aggravated the disease by some caustic. The disease of the nails of the toes, however, was of a kind not in the least likely to have been factitious; and I should probably not have entertained the thought had it not been for her general hysterical bearing.

On a second visit (June 13th) I got a few additional facts. Although I could not detect any tendency to xerodermia, yet she assured me that her skin had always been very dry, and that she had great difficulty in perspiring. She could dance in a hot room and never have the skin become in the least moist. If she became really heated, which was seldom the case, she felt uncomfortable, but never broke into perspiration. She also said that her feet varied much, and that at times they were somewhat swollen and would ache. She had never suffered very badly from chilblains, nor did her hands chap much. The prolabium of lower lip was dry and somewhat crusted, and she had sometimes cracks in it. She complained of difficulty in passing water, and often had to wait some time. At the time that her hands began to crack she was in her

usual health, and excepting that the affection began in cold weather, she could assign no cause for it. She had been treated by all kinds of ointment and by caustic in the cracks, and she had had her fingers bandaged down into the palms for weeks together, but, as stated, only one hand had been cured. The feet, which began last, had got worse, and the sores on the knee and knuckle were both of them new. These last both showed decided tendency to soft granulation outgrowth. Remembering the fact that in two other similar cases I have noticed congenital xerodermia in conjunction with fissured palms and soles, I have little doubt that there is in Miss R—— a predisposing element in her congenital peculiarity of skin. Next it is probable that the generative system exercises an injurious influence on the circulation in the extremities, especially in the feet, and thus disturbs their nutrition. Seeing that all four extremities have been symmetrically affected, it may seem almost absurd to attempt a cure by local measures. Arsenic has already been fully tried, and it is difficult to suggest any other remedy in which much confidence can be placed.

Miss R—— remained in London under my observation during July and August. During this time she was confined to her couch, and almost wholly disabled from the use of her hands. She was carried into a Bath-chair once or twice every day, when suitable, for exercise. We did our utmost to induce her to take food liberally. I used a great variety of local applications, mercurial ointments in various forms, the liquor arsenicalis as a stimulant, nitrate of silver and the acid nitrate of mercury as caustics. She took wine and tonics, and with the latter small doses of opium. Nothing had the slightest influence on the fissures. The sore which she had on one knuckle healed, but the very troublesome ulcers which had formed in front of one knee, would not heal. As a last resource I persuaded her to let me encase the feet in plaster of Paris. The cases were kept on for three weeks, and at the end of that time all the fissures were found to be healed. No sooner, however, had the cases been removed than the fissures began to re-open. Her hand had meanwhile remained in the same condition.

In the beginning of September I persuaded Mrs. R—— to take her daughter to Worthing. Whilst there she was placed under the care of Mr. Harris, of that place, by whom zealous endeavours were made to get the fissures to heal, and to improve the general health. Nothing, however, proved of much use, and in the end of October Miss R—— was in much the same condition locally, and had somewhat lost flesh. The sore in the front of the knee had healed, but another new sore had formed on the side of the leg. The cracks in her soles were as bad as ever.

Here for the present I must leave the narrative of this perplexing case. At some future time I may be able to give further particulars. It seems probable that we have to deal with extreme susceptibility to motion coincident with great enfeeblement of circulation in the extremities. What more to suggest with a view to cure I do not know. Since all four extremities are affected alike, it is clearly constitutional, and merely local measures are scarcely likely to secure permanent results. Everything has, however, been done in the way of change of air, tonics, wine and diet. Season seems to exercise but little influence, and Miss B—— alleges that she always feels better when it is cold and bracing. Otherwise change to a really hot climate might have seemed a judicious measure.

An example of Fissured Lips in association with Slight Xerodermia, and liability to Fissures in the Palms. Great susceptibility to cold.

A gentleman who consulted me because, to his great alarm, he had just discovered his papillæ circumvalatæ, proved of much interest in another direction. He had a deep cleft in the middle of his lower lip and two in his upper lip. Those in the upper were placed one under each ala nasi, so as to mark out a central portion, just as in double harelip. The result was to give to his mouth a curiously animal appearance. The fissures, although very deep, were not, at the time that I saw them, sore. They were the result of repeated attacks of cracked and inflamed lips, which had begun in boyhood. He

had also, he said, got into the habit of picking them, and had thus aggravated the deformity. There was no great thickening of the lips, and the prolabia were not much crusted. The case much reminded me of a young lady who, many years ago, was brought to me by Dr. Barnes, having six or seven deep bleeding fissures arranged symmetrically in both her lips. I have never seen another case exactly like hers. A central crack in the lower lip is of course very common; the two lateral ones in the upper, although perhaps not very rare, are less so. My patient told me that he had formerly suffered very much from cracked palms and fingers. Especially had his fingers been liable to have cracks form at all their creases. These cracks were always worse in cold weather, but were seldom wholly absent. He had often been quite disabled by them, and could never go for ten minutes into the open air without gloves on. Cracks would form also at the tips of his fingers, radiating across their pulps. No one, he said, who had not experienced them, could conceive how painful such cracks were. The back of the hand usually suffered from ordinary chapping. The palms were very dry. He told me that his whole skin was dry with the exception of his face, and on exposing one leg I found it in a well-marked condition of xerodermia (the pityriasis or slightest form). The soles of the feet had not suffered. There was no family history of xerodermia. The patient was the only one living, but he had had three sisters, and none of them, so far as he knew, had suffered from dry skin. All three had died of phthisis in early adult age.

Ulcerating Blains in both ears persisting for five years at all seasons in a healthy young man. Probable influence of habitual exposure to sea-air and wind.

The occurrence of ulcerations on the ears, very like those which I have described as occurring in the severe forms of summer eruption, but in this instance without any accompanying sores on the face, was exemplified in the case of a young married man who came to me from Margate. He was twenty-six years old, and apparently in good health. His

parents were living, and there was nothing noteworthy in his family history. In boyhood he had been much troubled with chilblains on his feet, but the liability to them had seemed to cease some years before his ears inflamed. He wore his hair short and his ears fully exposed, and he was in the course of his avocations much out in the sharp sea-air of Margate. His ears had begun to suffer five years before I saw him, and had never since, either in summer or winter, been quite well. He did not admit that he had noticed much influence from season, but I may remark that he came to me with them worse than usual towards the end of the summer of 1889. The ears were always dusky and bluish, and at times they became covered over the helix and adjacent parts by vesicles, which ulcerated and left scars. The borders of the helix had in both ears been deeply eroded, and the condition caused him much annoyance from the disfigurement induced. The condition was very near to common lupus, but there was no proof of actual new growth (apple jelly), and the symmetry was well marked. The initial lesion was a vesicle or "a little festering spot which became covered with a scale," under which ulceration took place.

I feel little doubt that this case should rank very near to the "chilblain-lupus" group. Probably the tissues were susceptible as regards sun-heat, cold wind, and sea-air, and thus at all seasons the blains * were kept up with variations of severity. It is interesting that there had been no indications of susceptibility in the nose or any part of the face, and that the liability to blains upon the feet and hands had ceased. I advised him that the most rational measure was to wear his hair long, and thus protect his ears; but he was a horse-dealer, and greatly objected to the alteration in personal appearance which this would cause.

He had exhausted a great variety of treatment before coming to me, and said that his experience was that all ointments had seemed to irritate. A sulphate of zinc lotion had, he thought, suited best.

* I have used the term blain in the above narrative as applicable to a dusky erythematous swelling with tendency to ulcerate such as we see in chilblains. All blains are not, however, of the chilblain causation. We may have sun-blains, fire-blains, or blains which are due to exposure to wind and air. We seem to want a generic term for these formations, and I would propose to call anything a blain which resembles a chilblain, but is not due to chilling.

NOTES ON HEREDITY.

THE attitude assumed by modern biological inquirers as to the laws of heredity is somewhat alarming to those who have sought to apply those laws in the domain of pathogenesis. The element of what is now called Lamarkism is to be wholly removed, and it is to be henceforth denied *ex cathedrâ* that peculiarities acquired by the parent can be transmitted to offspring. This I take to be the assertion of Professor Weissmann and those who think with him. They teach that heredity itself can be accounted for only by assuming the permanence of the germ-plasm; and this permanence is inconsistent with the belief that such plasm can receive modification from what happens in the rest of the body. All changes in the plasm must originate "spontaneously." Such, at least, is the more obvious impression derived from reading Weissmann's Essay. I should be most sorry to be needlessly controversial, or to charge the new creed with doctrines which it does not profess. The author I have quoted distinctly admits that certain "indirectly acquired characters"* may be transmitted, but still he would limit the class to those which are due to spontaneous changes in the germ. The question for us, as pathologists, is therefore as to what are the changes which the germ-plasm may, during the lifetime of the individual, spontaneously take on.

Huxley would appear to understand Darwinism to accept Lamark's opinions as being of wide bearing. In his brief sketch of "Biology" in the *Encyclopædia Britannica*, he writes: "Mr. Darwin has further endeavoured to give a

* See foot note in reply to Orth's criticisms on p. 411 of Weissmann's "Biological Memoirs," published by the Clarendon Press.

physical explanation of hereditary transmission by his hypothesis of Pangenesis, while he seeks for the principal, if not the only, cause of variation in the influence of changing conditions."

"No strictural modification is so slight and no functional peculiarity is so insignificant in either parent that it may not make its appearance in the offspring. But the transmission of parental peculiarities depends greatly upon the manner in which they have been acquired. Such as have arisen naturally . . . tend to appear in the progeny, . . . while artificial modifications . . . are rarely if ever transmitted."

Some of the problems as regards the transmission of acquired peculiarities in reference to disease, may be stated, and possibly solved, as follows:—

Can a parent transmit to offspring a specific particulate virus which has been personally received into the blood?

The answer to this in the case of syphilis, and probably also of small-pox, appears to be conclusively in the affirmative. It is highly probable that a similar answer should be given as regards bacillary tuberculosis and some other proved bacillary diseases.

Can a parent transmit to offspring a condition of depraved health, which has resulted as the more or less remote consequence of a specific and particulate poison personally received into the blood?

The answer to this it is far more difficult to give, but the probability would appear to be in the negative. The children of syphilitic parents inherit either syphilis itself or nothing. If they do not show signs of syphilis they appear often to be in perfect health, although one or both parents may be suffering severely from tertiary forms of disease.

Does a parent whose body has passed through a specific disease, and who in consequence is no longer personally susceptible to another infection, transmit to offspring any degree of insusceptibility or of modified liability to suffer?

The reply to this double question would seem to be that no actual insusceptibility, or at most a very restricted one, can be transmitted, but that it is usual, perhaps almost invariable, for the offspring of such parents to suffer in much diminished

degree of severity. This is shown, or at any rate made probable, by the universal testimony that specific diseases, when introduced into virgin communities, prevail with a severity vastly in excess of what is ever observed in communities in which the diseases in question have been long prevalent.

Can a parent transmit to offspring any peculiarity of general health, of organic function, or of tissue-change or proclivity, which has been gradually acquired personally in connection with habits of life or exposure to prejudicial influences? In other words, are such diseases as gout and other forms of malassimilation hereditarily transmissible?

We may take it for certain that by living freely on meat, beer, and wine, and taking but little exercise, a person may become "gouty." By that expression is denoted that he may acquire peculiarities of digestion and of excretion, and may modify the elemental structure of his tissues. The structures composing his joints, those of his blood-vessels, probably those of his skin, muscles, bones, in fact his entire body, will receive certain modifications owing to their having been nourished during long periods by the blood of a gouty state. Can these acquired peculiarities be transmitted to offspring?

In reply to these questions it may be said, I think, without any danger of contradiction, that the children of those who have long suffered from gout do inherit peculiarities of function and of tissue. Quite independently of attacks of ordinary gout, and of personal habits likely to have conduced to such, the offspring of gouty parents are prone to inflammations of the eye and of joints, to defects of assimilation and of excretion which are wholly peculiar. Some of these are very well specialized, but probably there are a great number of less marked maladies occurring in the early life of the children of the gouty which are in this relation.

RECORDS OF INTESTINAL OBSTRUCTION, WITH ESPECIAL REFERENCE TO SYMPTOMS AND TREATMENT.

(*Continued from page* 140.)

In continuing this subject, I purpose to do so on the plan pursued in my two former papers of citing individual facts and cases for comparison one with another, rather than making any appeal to so-called statistics. The very great diversity of the cases with which we have to deal, and the almost insuperable difficulties in diagnosis, with its permanent uncertainty excepting in fatal cases, render the attempt to apply the statistical method not only difficult but seriously misleading. Above all, the method of compiling statistics by collecting the cases which have been published in journals is, I feel sure, certain to lead to error. The cases which find their way into print are, almost all of them, selected ones, and are published either to illustrate exceptional symptoms, or to record the result of critical operations. As regards operation cases, probably not a fifth of those which are unsuccessful find their way into type. There is also another element of very obvious fallacy in the attempt to make the statistics of one surgeon supply rules for practice to another. It is the difficulty, or almost impossibility, of securing that the cases cited shall be really of the same nature and suitably comparable one with another. Thus it is evident that an operator who should make it a rule to open the abdomen early in all cases of suspected obstruction, would secure a certain number of successful results; but it is at the same time clear that not a few of his cases would be of a kind which would probably have resulted in recovery in other hands without any operation at all. Statistics on this subject, to be of any value, should be of one of two kinds. Either they should consist of cases given in the

fullest detail, and concerning which all doubt is removed as to their being properly comparable; or they should be what we may call statistics *en grosse*, comprising all the cases occurring in the practice of an institution or an individual surgeon which could be counted as "abdominal obstruction." Respecting the latter, however, an important fallacy is to be noted at starting, that no definition can be given of what constitutes a case of "intestinal obstruction." I have tried to show that there is no group of symptoms which can be held to justify the diagnosis of "acute obstruction," and it is equally true that at the other end of the series there is no abrupt line of demarcation between a case of protracted obstipation and one of chronic obstruction. Keeping, then, these various sources of fallacy in mind, I believe we shall arrive at safer conclusions if we are content for the present to contrast individual cases, and to cite the impressions and opinions formed by men of observing habits and good memories, and who have enjoyed large opportunities of experience, than by attempting to construct statistical tables. I will, however, having made these remarks as to the relative value of the different kinds of evidence, mention a few facts which more or less approach the statistical character. In doing so, it may be convenient that I omit the mention of names. My first item of evidence is a list of cases supplied to me by a surgical friend, and including, I am assured, all the cases in which he has opened the abdomen for the relief of abdominal obstruction. The cases are eight in number, and may be briefly stated as follows:—

1. F., 56. Diagnostic laparotomy. Lumbar colotomy. Successful; patient died 6 or 7 weeks later.
2. F., 36. Diagnostic laparotomy. Gastro enterotomy. Recovery; lived one year.
3. M., 64. Diagnostic laparotomy. Right inguinal colotomy. Recovery; lived 9 months.
4. F., 56. Diagnostic laparotomy. Left lumbar colotomy. Death from operation.
5. M., 4. Intussusception. Laparotomy. Recovery.
6. M., 26. Acute volvulus. Laparotomy. Recovery.
7. M., 6. Ruptured vermiform appendix. Laparotomy. Resection of appendix. Death.
8. F., 26. As the preceding. Death.

It will be seen that in this list we have five recoveries and only three deaths, and these results may at first sight be considered as distinctly encouraging for the performance of what we may call diagnostic laparotomy. It will be seen, however, that cases one, three, and four finally resulted in colotomy, and that thus, excepting as an aid to diagnosis, the abdominal section was of no avail, and it might possibly have been better in all these to have performed colotomy in the first instance. Since, however, two out of three survived the double operation, these cases may be held to prove something as regards the but slight risk, in certain cases in adults, from abdominal exploration. In case five, a child recovered after a laparotomy for intussusception. This case illustrates a rule of practice about which probably there can now be no dispute, that in cases of intussusception, recognized as such, and irreducible by other means, the abdomen ought forthwith to be opened. Case six is an instance of recovery after "acute volvulus," and therefore apparently an instance of a life saved by the procedure adopted. I believe, however, that even after the operation had been performed it remained somewhat doubtful whether a volvulus existed, and that no recognized reduction from such a state of things took place. The case, therefore, is precisely one of the class upon the existence and frequency of which I have tried to insist, in which abdominal taxis without abdominal section might have been successful. The last two cases need no comment. The operation simply failed to save patients whose cases were probably hopeless under any treatment.

It is a very important question as to how much danger the operation in itself involves. To judge from the expressions used by some recent writers, we might suppose that they held that it does not involve any, and that the abdomen may be opened and the bowels handled without any risk whatever in the procedure *per se*. Such a proposition can, however, scarcely be maintained if a little thought be given either to probabilities or to the results of experience. Without a doubt, the subjects of laparatomy for obstruction, even when the procedure has been most satisfactory, have a remarkable proneness to die. In not a few cases, the cause of death is

to some extent inexplicable. A band may have been divided and the bowel completely liberated, and all may seem most hopeful, but suddenly and unexpectedly, within a few hours, collapse sets in and the death quickly follows. I cannot help a suspicion that what is called "abdominal shock" is in these cases something very different from what we now know it to be in such operations as ovariotomy.

The danger of the operation is probably greater in very young subjects than in older ones. Thus the recoveries after the relief by operation of invaginations in infants have been exceedingly few. The chance of survival increases, as in the case of tracheotomy for croup, with each year of advancing life.

It may be freely granted that the danger attaching to the operation differs with the stage of the case, and that it is much less in the early stages than the later ones. One reason for this is that in the early stages it is generally possible to complete the procedures much more quickly than it is when tympanitis has been developed. With an undistended abdomen, it is both more easy to find the seat of obstruction and to keep the bowels in the cavity, or return them after their escape. When there is tympanitis, escape is almost certain to occur, and return will be difficult. One operator has indeed advocated in such cases the practice of incising the bowel, emptying it of its contents, and then stitching up the wound.

It is obvious that an operation of which such a procedure is a part has risks of its own. We must seek, then, to estimate the operation-danger in relation with different groups of cases and conditions of the patient; but it is, I would submit, a reality, and a not unimportant one in all. It is not at all a safe conclusion that all the cases which have died after it, would necessarily have died without it. Yet this, or something very near it, is, I think, the tone of argument of many who have written upon the question.

It may be a question, too, as to whether modern improvements have done much to diminish the risk of laparotomy and whether further improvements may be expected to accomplish more. Any one writing some years ago might reasonably have claimed that the use of antiseptic sprays

and solutions had rendered the risk of abdominal operations far less than formerly, and had pretty much put an end to peritonitis. No one, however, can to-day make such a supposition, for some of our most successful operators entirely discard these precautions. It may, however, still be the fact that the liberal use of water, more or less medicated, which is now a part of general practice, is a decided gain. We may instance also as improvements, which are likely to yet further advance, the careful avoidance of much handling of the bowel, and the adoption of better rules of search for the cause of obstruction. One authority advises that this should be done chiefly by quickly observing the state of bowels which present themselves in the wound, and noticing which coil is congested and distended. In this way he thinks that the operator may almost always come down on the seat of impediment at once, and that he will very rarely be reduced to the old expedient of passing the bowels through his fingers, foot by foot. Of this latter plan, he remarks to the effect that it is certain to find the stricture, "but in doing so it kills the patient." Yet it is precisely what most have hitherto done.

In partial justification of some of the remarks which I have made above I will now produce a rough list of all the cases of laparotomy which have occurred during a given period at a hospital, the records of which have been carefully kept. At this hospital the greatest possible attention has been paid to all modern improvements. For the most part, but not invariably, antiseptics have been sedulously used. The cases, as will be seen, are taken without selection, and are of extremely various character. The list includes, so far as I know, all in which the abdomen was opened, either for peritonitis or obstruction.

A second list of cases will also follow of a somewhat different character, since it comprises not only operation cases but all cases of obstruction which came under care. These two lists have been compiled for me from the published statistical reports of two different hospitals. As they are not done by myself, I may state they are by a surgeon whose bias is distinctly in favour of early operations.

List of Laparotomy Operations for Intestinal Obstruction or simulating conditions at —— Hospital during the years 1878 *to* 1887. (*Collated from the Hospital Registrars' Reports.*)

1878. 1. M.; aged 23. Volvulus of cæcum? Died.

1879. No cases.

1880. 2. F.; aged 5 months. Intussusception. Operation done late, after enemata, &c., had been fully tried. Died.

3. M.; aged 6. Obstruction by band. Operation not done until late. Died.

1881. No cases.

1882. 4. M.; aged 45. Stricture of descending colon. Resection after abdominal section. Died.

5. M.; aged 19. Perforating tubercular ulcer with peritonitis. Died.

1883. 6. M.; aged 27. Strangulation by Meckel's diverticulum. Had been vomiting one week. Vomit stercoraceous. Gut found almost gangrenous. Died two hours after operation.

1884. One case. This case ought hardly to be counted, since the patient was in a very collapsed condition, and died a few hours after admission. No post-mortem was allowed, so that the nature of the obstruction remained obscure.

1885. 7. M.; aged 28. Acute general peritonitis; cause obscure, *symptoms of only one day*. Died a few hours after operation. Caseous masses in mesentery.

8. M.; aged 6 months. Intussusception. *Symptoms two days.* Abdomen opened after "taxis" and air-injections had failed. Intussusception drawn out. Died five hours after operation.

9. M.; aged 23. Acute peritonitis due to perforation of vermiform appendix. *Symptoms, vomiting, &c., for three days.* Artificial anus made. Died.

10. F.; aged 35. Enteritis and intussusception? *Symptoms for several days.* Abdominal section. Intussusception in jejunum said to be drawn out. Post-mortem: acute hæmorrhagic enteritis.

11. F.; aged 26. *Symptoms for five days.* Strangulation by band from Meckel's diverticulum. *Operation lasted twenty minutes only.* Great relief for twenty-four hours; then sudden death from unknown cause. No post-mortem.

12. F.; aged 33. Obstruction from bands left after tapping a parovarian cyst. *Symptoms only a few hours.* Two bands ligatured and divided. Died.

1886. 13. An infant aged 6 months, with acute intussusception. *Symptoms only a few hours.* After failure of oil-injection the abdomen was opened, and an intussusception of ileum and cæcum reduced. Death a few hours later from acute peritonitis and mesenteric hæmorrhage.

1887. 14. M.; aged 28. Intense pain in abdomen, vomiting, *constipation for four days*, history of *similar attack three years ago.* Under anæsthetic sausage-shaped humour felt to extend from R. hypogastric

to R. iliac region. Abdominal section, humour found to be a distended and inflamed gall-bladder. No calculus detected. Wound sewn up, nutrient enemata, morphia. *Rapid recovery*, with relief of symptoms.

15. M.; aged 63. Admitted with acute intestinal obstruction. Operated on at once. Band found and released. Patient did not rally. Acute peritonitis at post-mortem. Strangulation relieved.
16. M.; aged 45. Admitted in collapse with severe pain about umbilicus. Abdominal section, perforation of intestine found to have occurred. Death in a few hours.
17. M.; aged 40. Abdominal pain and vomiting for two days. Collapse. Abdominal section. Acute peritonitis with extravasation found. Patient lived four days. Ulcer of cæcum found post-mortem.

List of Cases of Intestinal Obstruction treated in —— Hospital during the years 1872 *to* 1883. (*Collated from the Hospital Registrars' Reports.*)

1872. There were three deaths from intestinal obstruction; one was a case of obturator hernia, another intussusception, but no details are given. They seem to have been all the cases of intestinal obstruction that year.

1873. There was one case of intestinal obstruction. The patient had *stercoraceous vomiting, but recovered after succussion and enemata.* The Registrar suggests that it was obturator hernia.

Another case of intussusception in a child of 6 months (ileo-cæcal). Died on the third day; inflation had been attempted.

On the medical side one case of obstruction was admitted in a dying condition.

1874. There were no cases, nor any in 1875.

1876. F.; aged 47. Reducible hernia for fourteen years; complete obstruction for four days, hernia again reduced, collapse, vomiting. Abdominal section. A gush of pus occurred whilst examining towards pelvis with finger, intestine felt to be bound down in pelvis; abdomen syringed out, wound closed, recovery.

M.; aged 23. Obstruction *six days*, vomiting *three days*. Death. Post mortem: double volvulus of jejunum with band in addition.

M.; aged 9. Obstruction (of sudden onset) for four days. Collapse and death. Post-mortem: perforation of vermiform appendix from concretion; abscess in iliac form.

1877. Intussusception in infant of 8 months; ileo-cæcal valve protruded through anus. After inflation and oil enemata had failed, the abdomen was opened. Peritonitis. Death. The intussusception was reduced, and death appeared to be due partly to shock and partly to peritonitis.

There were also four cases of obstruction (all females) treated with success on the medical side—probably fæcal impaction.

1878. M.; aged 41. Relieved by enemata.

M.; aged 34. Enteritis, peritonitis, death. This seems from the post-

mortem to have been a case of volvulus of the ileum, the enteritis and peritonitis being secondary.

F.; aged 43. Stercoraceous vomiting, and great depression. Recovered after "shaking."

There was also a case of "fæcal accumulation" which died of acute enteritis and pyelitis, on the medical side.

1879. The only case was one of intussusception in an infant aged 6 months (of transverse and descending colon) cured by injection of air and water.

1880. F.; aged 35. Complete obstruction for seven days. No previous history of digestive trouble. Treatment by enemata. Death from septic peritonitis (patient abated whilst in hospital). Post-mortem: cancer of sigmoid flexure.

M.; aged 62. Reducible R. inguinal hernia for ten years. *Symptoms of moderate obstruction for five days*—onset with acute pain. Dulness in flanks. R. inguinal canal was laid open at lower part, but not even a sac found. With enemata the patient recovered, the dulness disappearing. (Probably fæcal impaction.)

F.; aged 61. Abdominal pain and occasional sickness for two months. Complete obstruction for seven days. Enemata, no result. Post-mortem: perforation of cæcum, peritonitis, cancer of upper part of rectum.

F.; aged 50. *Symptoms acute, of five days' duration.* Blood in vomit. *Abdominal section.* Nothing found but commencing peritonitis. Death fifteen hours later. Post-mortem: recent peritonitis, gall-stone (1" diam.) blocking small intestine; acute enteritis of the part above.

On the medical side there were three cases of fæcal impaction relieved, and one doubtful one that died.

1881. There was only one case of intestinal obstruction (on the medical side), and there is no note except that it recovered.

1882. There were no cases on either medical or surgical side.

1883. F.; aged 4 months. Intussusception commencing at ileo-cæcal valve; characteristic symptoms for twenty-five hours; tumour readily felt. Under inversion and repeated injections of air or water apparent reduction was several times effected, but the child died fifty-two hours after admission (*i.e.*, on the fourth day after the onset of symptoms). A partly irreducible intussusception was found (invaginated part gangrenous).

The two lists of cases which I have given above have the essential difference that the one comprises all the operations for exploration of the abdomen performed during a certain period without mentioning the cases of obstruction which were treated without operation. The second list comprises all the cases of abdominal obstruction, whether acute or chronic, which came under care during the years which are mentioned. It includes, of course, all cases in which the

abdomen was explored by operation, together with many others. The lists are, as will be easily seen, not from the practice of the same hospital. I am not responsible for their accuracy any further than this, that they have been carefully collated for me from the reports drawn up by the registrars of the hospitals concerned. They must not for a moment be taken as statistical. They are simply rough lists, imperfect in many items of detail, and far too briefly put to permit of any accurate comparison of individual cases. They appear to me, however, to have some value as being likely to convey to a careful and candid reader an impression as to the present position of this branch of abdominal surgery, at least as truthful as that given by some of the more elaborate statistical statements which are to be found in some recent works. I shall not permit myself to regard them as statistics even to the extent of attempting to construct any synopsis of their facts. Those interested in the subject must read carefully for themselves and form their own impressions on them. That they do not present a very cheering picture of the practice of exploratory laparotomy is undeniable, for although several patients recovered after it, in not more than one or two could it be thought to have exercised a decidedly helpful influence. In one (a case of abscess) it was probably the means of saving the patient's life. It curiously happens that several of the cases of recovery were anomalous ones so far as the operation was concerned, and this is a fact which I have noted in not a few other successful cases recorded by different surgeons. The conditions found at the operation did not conclusively prove any mechanical obstruction, and thus it could not be said that any definite object was served by its performance. In one of these, all that was found, where intussusception had been suspected, was a much distended gall-bladder. It is, of course, both possible and probable that this condition would have relieved itself without laparotomy.

The advocates of early operative exploration will find in these lists plenty of opportunity for repetition of the suggestion, so often and properly made, that the treatment came too late. But side by side with these there are others in

which it was resorted to very promptly. The advocates of abdominal taxis and of abstinence from laparotomy, excepting when a tolerably confident diagnosis can be formed, have, I think, a fair right to claim that the general lesson to be derived from these lists is in favour of their opinions. The first list comprises several in which the early employment of abdominal taxis might have been successful; and the second, several in which it was so. A few of the latter were in really urgent conditions. Let me here insist, as I have often done before, that those who advocate anæsthetics and abdominal taxis in preference to early exploratory operations, have an equal right with their opponents to plead that the majority of cases which come under their notice come too late. It is most freely to be admitted that the conditions found in not a few cases mentioned in these tables were such as could not possibly have been made better, and might have been made decidedly worse, by the employment of any form of abdominal manipulation. If, however, in the earliest stage of all of them an anæsthetic had been given, and under its influence a careful and systematic examination of the abdomen made, with energetic attempts at taxis if thought desirable, I do not believe that any of the cases would have been materially hurt; I think it probable that many would have been cured, and that in others the diagnosis would have been much assisted. It is for the early use of anæsthetics in all cases, and abdominal taxis only in appropriate ones, that I plead.

Any one who reads these lists of cases attentively cannot fail to be instructively impressed with the difficulties of diagnosis, in many cases almost insuperable, which they present. He will see that the most skilful surgeons, with all the advantages for consultation which hospital practice affords, may still find it impossible to discriminate between peritonitis, ruptured intestine, plugging from gall-stone, malignant stricture, and many other conditions. He will have to observe further that it is even quite possible for the diagnosis to remain in doubt after the operation.

The late Mr. Callender, in recording a case of death from obstruction caused by a twist (as proved at the autopsy), writes,

"I was glad not to have attempted the operation during the life of the patient, for it would have been impracticable." He adds, respecting another case in which internal strangulation through a hole in the mesentery had caused death, "In this case also gastrotomy would have failed in relieving the stricture, which was effected with difficulty even at the post-mortem."

In the St. Bartholomew's Hospital Reports for 1881, Dr. David A. King reports two cases, one in order to illustrate "the difficulty in deciding the question of operative interference in cases of intestinal obstruction;" and the other "the eminent success attending the expectant treatment of some cases." In the first of these an operation was performed, and a band found and divided, but it was done too late, and sloughing had already occurred, so that perforation took place during the manipulations. The portion of intestine under the band was exceedingly small. The patient never rallied from the operation, and died a few hours after its conclusion. In describing minutely the conditions of the constriction, Dr. King argues that there was nothing which rendered spontaneous reduction at all improbable. He distinctly states that no loop of intestine was involved. His second case is a very instructive one, for a surgical consultation had taken place on it, and an unanimous opinion in favour of an immediate operation had been given. This was on the fifth day of an obstruction of sudden onset, with pain and vomiting. The physician whose patient the man was, in opposition to the advice of his surgical colleagues, decided to wait a little longer, and the result was that the man made an excellent recovery without operation. The treatment was by opium and the use of copious enemata. Dr. King argues that it was quite impossible to make any more probable diagnosis than that the obstruction was due to a band, remarking, I think with great reason, that it is a purely gratuitous assumption that cases of band-strangulation are always fatal.

One other remark that remains to be made in connection with the lists just given is this, that in a very considerable number of fatal cases (whether after or without the exploratory operation), a colotomy was really the measure which was indicated.

I feel sure that a far more liberal resort to this operation, and its performance at earlier stages than has been done in the past, is much to be desired. Case after case might be selected from the above lists in which in all probability the patient's life would have been saved had this operation been done. Nor is it necessary, as some operators appear to think, to perform an abdominal exploration in doubtful cases in order to ascertain whether a colotomy is indicated. It is surely better in these cases to reverse the order of procedure and do the abdominal exploration only if the colotomy is found impracticable. By the anterior or inguinal operation the two may indeed be combined. I do not wish, however, to advocate this latter procedure, and should prefer, so far as my own experience has gone, to attempt a lumbar colotomy in the first instance. In cases in which the position of the obstruction is doubtful, the right loin is to be taken rather than the left as increasing the chance of success.*

With these remarks I will, for the present, leave the consideration of statistical statements, and will return, in my next number, to the examination of certain special parts of the subject.

(*To be continued.*)

* The Bradshawe Lecture at the College of Surgeons, in December last, was devoted to the consideration of the relative advantages of lumbar and inguinal colotomy. The lecturer, Mr. Bryant, produced a large and most interesting array of clinical evidence in favour of the older operation, and proved also that its risks are but very small if it be not delayed too long. The chief advantage which he admitted as belonging to the inguinal method was the opportunity offered for exploration. A similar expression of strong preference fell from Mr. Durham in a public discussion on the subject in 1887. Both Mr. Bryant and Mr. Durham have, as is well known, long been zealous advocates for early colotomy.

SYPHILIS.

No. VII.—*Syphilis in a pregnant woman. Infection of the fœtus. Some facts as to transmission.*

Dr. C—— had a midwifery chancre on his finger. The sore was noticed on November 1, 1882, and there was a swelling in the armpit. A general eruption came out in the Christmas week. On January 16th he came to me. The sore had been "an eczematous fissure," and had never been suspected until the rash came. He believed that his wife was a month pregnant when he contracted the disease, and he had at once abstained from intercourse when he found what was the matter with his finger. His wife, however, observed a plentiful eruption in the fourth or fifth month of pregnancy. She was confined, apparently at full time, on July 15th. No primary sore was ever recognized in her. It will be seen that two hypotheses as regards the wife and child are possible. The child may have been begot late in November when the disease was incubating in the father, and may have communicated the taint to its mother (fœtal contamination), or the mother may have contracted a vaginal sore from her husband in December, when she was two months pregnant, and have thus infected her child. The former seems the more probable.

Both father and mother were treated, and got well. Neither of them suffered much, and when I saw them again in 1888 (five years later) both were free from reminders and seemed quite well.

The child, a little girl now nearly five years old, had suffered severely. In infancy she had rash and snuffles and

severe attacks of convulsions. After the convulsions she squinted, and seemed to have very defective sight.

She is now (1889) of puny growth, and decidedly below her age in intellect. Her anterior fontanelle is not yet closed. It is depressed considerably below the level of the bones, and the pulsation of the brain can be distinctly felt (nearly five). Her eyes converge, and both external recti appear to be weak. Sometimes when she is not giving attention they are straight, but the moment that she is excited the squint comes back. There are slight but decided thickenings in front of both tibiæ. Her upper incisor teeth (milk) are rotting through at their necks. Her tongue is red and somewhat bald. In both eyes there are extensive evidences of choroiditis, chiefly in the form of minute yellowish white dots, ill-defined and without pigment, but there are also numerous small pigment deposits in the retina. In the right a wide rim of pigment surrounds the disc, which is otherwise normal; whilst in the left the disc is curiously misshapen and its edges blurred (probably by old neuritis). In this eye there is a single, very dense, almost globular opacity in the vitreous. As she will not answer any questions, it is very difficult to tell what she can see. Probably retinitis pigmentosa with partial idiotcy will follow.

After the birth of this child, Mrs. C—— had a miscarriage at a very early period, and three years later a child was born at full time, which lived, and is now a year old and quite well. This child in infancy had snuffles and some doubtful soreness at the anus, for which mercury was used. It soon recovered.

No. VIII.—*On the Classification of Syphilitic Skin Phenomena.*

The first and by far the most important classification of syphilitic diseases of the skin would, in my opinion, divide them into the exanthems and the lupoid affections. The distinction between the two is that the former are symmetrically arranged, of the nature of rashes or eruptions, temporary in duration, and for the most part prone

to disappear, if not spontaneously, at any rate very readily under treatment. The lupoid affections, on the other hand, are not usually symmetrical and are often definitely local, more or less resemble common lupus in character, and always tend to get worse unless definitely and efficiently treated. The one class belongs to the secondary period of syphilis and the other to the tertiary, and it is amongst the rarest events in the history of that disease to see them in any way reverse their positions. It is not by any means so rare to see a secondary eruption gradually slide into a tertiary one; a symmetrical tubercular, or bullous exanthem, into a much less symmetrical lupoid disease. Thus rupia, which is always symmetrical at first, and always occurs comparatively early in the course of syphilis, may easily slide into rupia-lupus. The longer it lasts, the more certainly will it lose the features of rupia and assume those of lupus.

The classification of the different forms of secondary eruptions of syphilis into erythematous, papular, scaly, bullous, etc., although of much interest, is, it seems to me, of very minor importance to that given above. They imply little or nothing as regards the stage of the disease, not much as regards its severity, and, as is well known, the several features of difference which have been named are often met with in one and the same patient.

No. IX.—*Elephantiasis of the Scrotum in remote association with Syphilitic Lupus.*

A very remarkable example of elephantiasis of the scrotum in a patient who had never left England, and in connection in the first instance with tertiary syphilitic inflammation, came under my notice in February of 1887. The patient was an old gentleman of 76. He was in good health, though greatly inconvenienced by the huge mass he had to carry about with him. His scrotum was as large as two adult heads, and measured about 36 inches in circumference. It was in a condition partly of elephantoid hypertrophy and partly of solid œdema. The hypertrophy was strictly confined to the scrotum, and did not involve the thighs or

the pubes in the least. Nor was the skin of the penis or prepuce materially thickened, though the penis itself was almost buried in the mass. It was possible that part of the bulk might be due to hydrocele, but the great thickening of the overlying skin prevented any accurate diagnosis. Exploratory punctures had been made before I saw the case, but without result. It was said to have been twenty years in process of enlargement, but had increased more rapidly of late. The connection of the disease with syphilis in the first instance was made probable by the presence of some deep scars at the root of the penis. These had been left by tertiary ulcerations, and there were many others on different parts of his body. More particularly the whole of one buttock was in a condition of irregular scar consequent upon lupoid ulceration. The date of the primary syphilis was upwards of forty years ago, and the syphilitic lupus had been cured twenty years ago. During these last twenty years he had enjoyed excellent health, his only trouble being a gradual increase in the size of his scrotum; the latter had no doubt taken its origin in the œdematous inflammation which had been produced by the lupoid ulcers at the root of the penis. This solid œdema had never disappeared, owing to the pendulous position of the parts implicated. In this we see an ordinary exemplification of the laws which influence the production of elephantiasis. Although the disease began in connection with a syphilitic inflammation, its further development had had no special association with syphilis. The case may indeed be cited as a good example of permanent recovery after very severe tertiary disease of the skin, for the patient, now aged 76, was florid and in excellent preservation, looking much younger than his years.

No. X.—*Syphilitic Elephantiasis of Scrotum and Penis in connection with Syphilis.*

Mr. Dobson, at the General Hospital, Bristol, showed me a very interesting case bearing upon the production of elephantiasis of the scrotum in connection with syphilis. The patient, a young and healthy man, had suffered from syphilis

ve years previously, and had been for the last eighteen ths or more the subject of a chronic ulceration which had entirely destroyed his prepuce. This ulceration was attended by considerable growth at its edges, and some thick little bossy masses were seen near the edges of the ulcer. It extended from the destroyed prepuce on to the skin of the penis, and a little upon his scrotum. The point which most nterested me in reference to elephantiasis was, that the hole ulcer was becoming thickened and tuberculated. The ndition was indeed precisely that of an early stage of ephantiasis, and it was undoubtedly due to the proximity of ong persisting syphilitic inflammation. The condition of the ulcer might easily have been mistaken for epithelial cancer from its thickened and warty edges. It closely reminded me of what was present in Mr. J——'s case. In this latter the difficulty of diagnosis was such that I cut away portions for microscopic examination, and also obtained the advantage of a consultation with Sir James Paget before venturing either to excise the part or to rely on specific treatment. The microscope gave negative results, and a course of mercury entirely cured the disease. Mr. J—— was a gentleman of about fifty-four, who had suffered from syphilis many years before I saw him, and who had also had specifics used, as he said, without result, just before his coming to me.

No. XI.—*Interstitial Keratitis, affecting one eye only. Teeth not affected.*

A gentleman, aged 27, a solicitor, came to me on account of interstitial keratitis in one of his own eyes. He was well aware that it implied inherited syphilis, and told me that his father admitted having had syphilis four or five years before his marriage but said that he had been, at the time of that event, for three years quite well. The facts which were given me led me to doubt much whether this history had anything to do with the son's keratitis. The father's marriage took place in 1849, and my patient was not born until 1862, whereas several brothers and sisters had been born previously who had all remained perfectly healthy. The medical man

who attended at my patient's birth was still liv penis or remembered all the facts. He had treated him in infan f was a syphilitic eruption. He had also treated his father a yea the before the child's birth for a severe attack of double iritis, and some years after his birth his mother suffered from a tertiary ulceration on one knee. Putting these facts together, it seems almost certain that the father contracted syphilis anew during his married life, and that his double iritis was probably secondary. His wife's gumma on the knee might possibly have been due to syphilis by conception. With the history above given, there could not be the slightest doubt that my patient was the subject of inherited syphilis, and this being established it is of interest to note that the keratitis, which had existed six months when I saw him, was still of one eye only; that his teeth were of perfectly good form, his nose remarkably high and narrow, and that with the exception of some deep lines about the mouth there was nothing to denote the supposition of inherited taint.

DISEASES OF THE SKIN.

No. XII.—*Pustular Sycosis of the whole body in a young man.*

One of the most deplorable cases of general sycosis which I have ever seen, occurred in the person of a young man named S——, who came to me from Manchester in June, 1889. Both whiskers were affected, his beard, both eyebrows, the whole scalp, the axillæ and the pubes. There were indeed pustules over his whole body and everywhere in connection with the hairs. There was a certain admixture of eczematous inflammation, but in the main the disease was restricted to hair follicles. He had a number of dark copper-tinted stains scattered over the chest and trunk, which represented some former eruption, the precise nature of which I could not quite ascertain. Although only 22, he had been a year married, and he had never had any venereal disease. In early boyhood he had been long troubled by an eruption on his scalp, probably eczema. Of this he thought he had got quite well, and had remained so until the present outbreak, which began nine months ago.

The conditions of the eruption in different parts on the present occasion were not quite the same in different parts. On the whiskers, chin, pubes, and eyebrows it was the common type of pustular sycosis; the hairs were in part destroyed, and many of those remaining were embedded in pustules. On the scalp, however, the condition was much less acutely inflammatory, and all the hairs were matted together in a thick, dry scaly crust like that of severe pityriasis or seborrhœa. The young man had already had much careful treatment by different medical men, and had recently been under the care of a distinguished specialist who had sent

him to the sea and used ichthyol, &c. What to do for him was the question. I represented to him the gravity of his disease, and advised his wife and himself to devote their whole attention to its cure. My prescription was a tar wash and an ointment containing tar and mercury, and these were to be used constantly, the patient remaining in bed, and epilation being practised on the largest possible scale. I have no doubt that we had to deal with an example of self-contagion in part local and in part through the circulating fluids. The acuteness and severity of the process was probably conditioned by the youth of the patient. He was of dark complexion and sallow, but not specially feeble. The disease had, he said, at one time reduced his strength so that he could scarcely stand.

No. XIII.—*Cases of Severe Sycosis of Pubes.*

A very good example of pustular sycosis of the pubes came under my observation in the person of a gentleman named G——. He asserted that the eruption had been present not more than a month, but he had certainly had some eczematous irritation at the root of the penis for a much longer period. I had treated him for eczema some four or five years ago. I had then seen him on only one occasion, and his assertion was that he had been quite cured. When he came to me in April, 1889, he had no disease of his skin excepting in the pubic region. The whole of this part was covered with pustules, almost all of which were in association with the roots of the hairs. I pulled out many hairs, all of which brought with them the sheath adherent and infiltrated with pus. Close to the root of the penis there was some scaly desquamation as if from eczema, and this he admitted he had been in the habit of scratching severely. The sycosis had developed very rapidly and was clearly, I think, spreading by contagion. A few of the large hairs on his abdomen, nearly as high as his umbilicus, were affected.

I saw some years ago a case very similar to the above in which a lady was the subject of the disease. It was of long duration and very severe, almost the whole of the pubic hairs

had been destroyed and a condition produced closely resembling that of advanced sycosis of the whiskers.

It may be remarked in connection with cases such as the above, that it is well worth the patient's while to submit to very systematic treatment in the early part of the case. The cure must be by local means, and these must be most sedulously employed. Internal remedies are of little or no use, nor is it much better to rely upon the patient's chance employment of a lotion or an ointment, whilst he is allowed to follow his ordinary occupations. The treatment to be really efficient should be conducted in bed. A careful and complete epilation should be the first step, and after that the use of lotions or ointments calculated to suppress the cell formation. Of these I believe none will be found more convenient or effectual than a strong lead and spirit lotion, to which a little tar is added. Mercurial ointments are, however, very useful. In cases in which the patient cannot give up his occupation, he must be instructed to use the remedies as carefully as possible during the evening and night; but his cure will be much more protracted and far less certain, than if he will submit to treatment in bed.

Although sycosis and ophthalmia tarsi are diseases of which the pathology is the same, and which differ chiefly as to the part affected, it is certainly rare to find them present together. I have, however, seen several such.

A young man was sent to me from Saffron Walden in May, 1868, who had them both in a severe form. All the hair follicles of both lids of the right eye were inflamed, and his chin and upper lip were covered with the pustules of sycosis, with some eczematous inflammation of the surface.

No. XIV.—*Two cases of an undescribed Skin Disease ("Vitiligo").*

The two cases which I have to narrate appear to be exactly alike. At the same time they present features of difference from all which I can myself remember either to have seen or to have found recorded by others. In all probability the old term Vitiligo, which has now passed out of use, included first and chiefly cases of leucoderma, and secondly and more

rarely cases of localized morphœa, the "ivory patch" form. Apart, however, from both these, I remember to have seen in my early studentship at Blackfriars two or more cases to which Mr. Startin gave the name of Vitiligo, which I think closely approached those which I now record. The spots were placed on the shoulders, and were peculiar from their silvery whiteness and smoothness. The fallacy which has suggested itself to my mind in later years is they may after all have been nothing more than the scars of very abundant acne. Severe acne, and especially that form of pruriginous acne which I have described as the acne of adolescents ("Pennman's disease"), does leave the shoulders covered with silvery scars. This was the state in which Pennman's shoulders were left on his recovery. I have often had difficulty in convincing my friends that silvery spots which I believed to be of this origin were really so. To the cases now to be related no such fallacy can attach. The patches were grouped on the limbs, where acne does not occur, and they were certainly in the first instance not scars, but slightly thickened patches to which a certain small amount of epidermis adhered. I will, however, leave the cases to tell their own story, only premising that I shall be much indebted to any reader who can direct my attention to similar ones They are from notes taken many years ago.

Case 1.—*A symmetrical Eruption of grouped spots of silvery whiteness and almost smooth; Limbs and trunk affected; of seven years' duration, and unattended by irritation.*

L—— A——, aged 49, living at 156, Broad Walk, Southwark, a married shoemaker, sent from H.S.D., May 26. His eruption consisted of symmetrical groups of spots which were white and almost silvery in aspect, very slightly scaly, and some of them a little raised. The scale crust, where present, adhered firmly, and after it was scratched off, the spot was whiter and more glistening than before. The arrangement was in long oval patches like those of herpes. It occurred on both hips between trochanter and crest of ilium, curving round and downward to front of thigh. Also over the upper thirds of ulnæ (not on tip of elbow), in the middle of lower

third of sternum, and on inner side of right knee just below the joint. On the arms the patches were less silvery, more of a dirty brownish tint than on the legs. Everywhere it seemed to leave thin white scars. He had some lichen marginatum on chest and back. The pearly look of the patches was one of their chief peculiarities.

History.—It began seven years ago behind the elbows, and was observed next on the chest. It has never given any special trouble. It neither itches nor tingles.

He is thin and rather pale, but says that he was never seriously ill. Some pain between shoulders from dyspepsia. He does not know of skin diseases in his family.

Case 2.—A symmetrical Eruption of pearly white spots; More than twenty years' duration.

Mrs. M——, aged 40.

I transcribe the following notes exactly as they were written on the patient's hospital paper. The first half are by Mr. Waren Tay.

"The case appears to be an example of an unusual form of Morphœa. Scattered over the limbs and trunk are numerous smooth patches of milk-white colour. These are glossy, but only very slightly thickened. On the right neck, over the clavicle, there is a large group of them, where they become confluent and much resemble the lardaceous stage of Addison's Keloid. The skin is a little tight, but is scarcely thickened. On the opposite side of the neck there are only a few discrete spots, from the size of peas to that of a fourpenny-piece. We did not examine the rest of the surface, but she states that on the body many of the patches become brown. On the legs as on the arms there are scattered white spots."

(A daughter is the subject of some skin disease, and attended at this hospital Nov. 17, 1874. No. 21,401.)

The following notes are my own writing: "The pearly smoothness and small size of these spots distinguishes them at once from those of leucoderma, with which indeed the eruption has no great similarity. The woman states that the spots on the arms show more when the skin is dirty, as the spots do not take the dirt. At present they are scarcely visible.

She states that the spots first showed themselves when she was 14. They never gave her any trouble, and never itched in the least. Before her marriage she consulted a medical man, but he told her that she need not mind them. She thinks they have not materially changed for many years. I have seen similar white spots in several other cases, and I think usually in association with Morphœa. The case appears to differ from the more common forms of Morphœa in that there is no tendency to progress to the brown stage, in that there is very little thickening or induration of the skin. It begins as a white spot and continues as such." From Morphœa, however, the cases differ in their very prolonged duration without change, and also in their symmetry.

No. XV.—*Second attack, after a long interval, of an Eruption in a healthy young man, somewhat resembling Erythema Nodosum, but generalized. Prolonged duration in spite of treatment. High temperatures and emaciation. Final recovery apparently without reference to treatment.*

Some years ago I went to the Dreadnought Hospital, on the invitation of the late Dr. Carrington, to see a case of great interest. The much to be lamented death of Dr. Carrington, in the next year, prevented his intended publication of its facts. Although I possess only memoranda which were taken solely for my private use, yet they may serve, together with some letters from Dr. Penny, to give a fair notion of the peculiar features of a disease which was then to me unique and is still of extreme rarity. I may add that the patient was seen at the same time by Dr. Pye Smith and other physicians, and that Dr. Carrington took great interest in him, and did his best to collect information which might aid in the diagnosis. No one was, I believe, ever able to suggest as a diagnosis any name in recognized use. For a time it appeared not unlikely that the disease might end fatally, and its subject was for long confined to bed. The patient, a young Swedish sailor, was emaciated and very pale. He had been in the hospital some weeks when I saw him, suffering from an erup-

tion which looked like a cross between urticaria and erythema nodosum. He said that it had begun whilst he was at sea, and that his first symptoms had been aching in his knees. He believed that he had had a similar attack about two years ago, on which occasion he was for several weeks in a colonial hospital. The eruption during the time that he had been in the Dreadnought had been attended by high temperatures, failure of strength, and emaciation. It had been characterized by the appearance of large erythematous patches, which had come out over all parts of the face, limbs, and trunk. Some of them were considerably raised, none had vesicated; they had varied much in place, from time to time, some fading away and then new ones appearing. When I saw him the wheals were not characteristic of urticaria, many of them being more raised at their centres than at their margins. There was one large one on the side of his face which appeared to be almost half an inch in thickness in the middle. In the character of its edge, which was ill-defined, and in general appearance it looked just like a huge lump of erythema nodosum.

Having regard to the fact that the man had had a previous attack, and that on each occasion the eruption had commenced when he thought himself in good health, and that it had been attended by great emaciation and debility, it occurred to me that it might possibly be a sort of pemphigus without bullœ. We had exhausted all directions of inquiry in reference to diet and climatic influence, and could find no light on the case. I suggested that arsenic should be tried on the pemphigus hypothesis, and found that it had already been begun that morning. A few days later I had the pleasure of receiving the appended note from Dr. Penny, then the resident medical officer of the Hospital:

"SEAMEN'S HOSPITAL SOCIETY (late *Dreadnought*), GREENWICH, S.E.,
"*May* 28, 1883.

"DEAR SIR,—You will be interested to hear that our patient here has wonderfully improved. He commenced taking arsenic (Liq. Arsenicalis m. iii. t.d.) on the morning of the 23rd (the day you were here); that evening the temperature was 100°—the same as the morning (without the previous constant evening rise). The next morning (24th) it had fallen to normal, and there it has since remained. No fresh 'lumps' have appeared, and those previously present have

rapidly died away, and are now almost gone. The patient *generally* has much improved, and is sitting up this afternoon.

"I thought you would like to know of this change, which certainly looks very like an effect of the arsenic. I should say that on the 25th I increased the dose to m. v. Should anything further occur of interest, I will let you know.

"Yours truly,

"J. Hutchinson, Esq." "EDW. PENNY.

"SEAMEN'S HOSPITAL SOCIETY (late *Dreadnought*), GREENWICH, S.E.,

"*June* 25, 1883.

"DEAR SIR,—I hoped that my last letter to you would have closed our correspondence on the subject of our patient here, but for the last fortnight he has had a relapse, just like his previous attack, and in spite of Liq. Arsenicalis m. ix. t.d. The spots are now less large than formerly, and are in many cases distinctly in the form of raised red rings spreading at the margins.

"There is no doubt that the medicine is correctly dispensed.

"I am, yours very truly,

"EDW. PENNY."

Six months later I wrote to Dr. Penny to ask for further information as to the man's progress, and received the following letter:

"SEAMEN'S HOSPITAL, S.E.

"*Dec.* 10. 1883.

"DEAR SIR,—I am very pleased to answer your note concerning the patient you saw here last May. He remained in much the same condition as he then was until August, having continuously high and hectic temperatures, and a more or less constant succession of spots on various parts of the body—arms, legs, trunk, and face—perhaps the extremities showed more tendency to be affected than other regions. During this time he became much emaciated, though retaining a good appetite and a fair amount of muscular strength. About August he improved very gradually, though still subject to a recurrence of the 'lumps' and some rise of temperature. He got up, and in spite of these occasional slight relapses put on flesh and strength until the end of October, when he left to go to his own country. I am sorry I cannot add that he owed his recovery to any drug. We tried arsenic, mercury, sodæ salicylate, and quinine and iron, at different periods without any apparent benefit. When the arsenic was commenced it seemed to have an immediate good result, but as subsequently a relapse occurred, in spite of its continued administration in larger doses (up to nine minums t.d.s.), the first good result must have been merely of the nature of a coincidence. To show how complete his recovery of strength was, I should say that he acted as porter in the wards by carrying pails, etc., for some weeks before leaving the hospital. Yet only a few days before he left he showed me one or two small nodules on his forearm.

"Believe me, yours very truly,

"EDW. PENNY."

It will be seen from the last expressions in Dr. Penny's letter, that although the general health was quite restored,

there was still some tendency to relapse on the part of the erythema. I regret not to be able to give more exact detail as to the constitutional symptoms, and especially as to the temperatures. It may, however, be taken as certain that the latter had been high during long periods. I saw the patient on two occasions only, and have to express my obligations to Dr. Penny (now of Marlborough) for his kindness in supplying me information.

Although I have, according to usage, placed this case in the department of Diseases of the Skin, yet it will be obvious that it is rather one of severe general illness attended by skin phenomena. In the remarks which introduced it, I have said that at the time that it occurred it was unique in the experience of other observers as well as myself. Few indeed, however, are the cases likely to remain long in such a category if due diligence in observation be combined with sufficient width of field. Within the last six months, through the kindness of Dr. Crabb, of Holloway Road, another patient has been brought under my notice whose case in many features closely resembles those of the one just described. In Dr. Crabb's case the temperature chart, diligently kept by him, shows that for nearly six months the temperatures ranged from 103 to 105. The case was seen by several physicians, and the diagnosis of typhoid fever more than once given, yet with these temperatures and great emaciation there went an erythema nodosum eruption much like that just described. As in Dr. Carrington's case, the patient was a young man. I shall publish the case in detail in an early number of the ARCHIVES. In several of its features it goes beyond what occurred in the one now under consideration. Its course is not yet complete.

I shall be under obligation to any of my readers who may be able either to direct my attention to published records of similar cases, or, secondly, to furnish further particulars respecting Dr. Carrington's patient. He was not quite well when he left the *Dreadnought*; as he had had a previous attack he has very likely since come under care for a relapse, and may not improbably have been treated in some hospital. His case would be sure to attract attention.

No. XVI.—*On the "Marbled Skin" and its causes.*

There is a condition of skin to which the term "marbled" is applicable; or perhaps I ought to say that there are several. The commonest and most typical presents a certain resemblance to shell-marble, rather than to those forms which exhibit only veins or streaks. It is seen chiefly on the shoulders, upper parts of arms, and back, but now and then on the limbs also. Its essential features are, ill-marked discs, or small nummular areas, of a dull white colour, upon a more or less dark ground. The crowding together of these discs gives a streakiness to the darker parts, which certainly suggests a comparison with some kinds of marble. Undoubtedly by far the commonest cause of a marbled condition of the skin of the shoulders is the previous occurrence of severe acne in a patient of dark complexion. It is a peculiarity of acne on all parts, but especially on the shoulders, that it leaves, when it is perfectly cured, little white scars. In some patients the condition thus left is very conspicuous and remarkable. More than once I have known a condition which I felt sure was nothing more than the consequence of acne, receive the name of "Vitiligo." It is often very difficult to be certain that the little white spots are really scars, and many a time in studying such cases I have failed to convince others that such was their real nature. If this marbling happens to a patient in whom moveable pigment is abundant, the intervening areas are sure to attract most attention, and as is so frequently the case in leucoderma, it may be insisted that the morbid process is essentially one of pigmentation.

The proposition which I wish now to advance is this, that apart from acne there are many skin diseases which leave little scars and may end in marbling. These scars are often produced without any loss of tissue on the surface. They are, so to speak, sub-epidermic scars. It is the rete chiefly which has been destroyed, and not the epidermis. There is a variety of psoriasis which leaves scars of this kind, and the disease which I described many years ago as Summer Prurigo invariably does so. The patient (a lad named Pennman), whose portrait, as illustrating this form of prurigo, was published by the New Sydenham Society, had, when after fifteen years'

duration his disease got well, his skin left marbled all over by white sub-epidermic scars. In the case of a young lady whom I saw several years ago in consultation with several distinguished medical friends, I believe I quite failed to remove the belief that Addison's disease was threatened. In her the suspicious condition was, a marbled state of the skin of the thighs and back, and, for my own part, I felt certain that the white discs, and not the deep-brown bands between them, were the results of disease. In her the history of the preceding dermatitis was not very clear, for there had been only some lichenoid eruption, consequent on the use of some application for pain. I have been induced to make these remarks by having recently observed this marbled condition in a very marked form in a man who was unquestionably the subject of psoriasis. He had been liable to psoriasis for more than twenty years, his age being now thirty-one. He had never had syphilis, and none of his brothers or sisters had shown any tendency towards disorders of the skin. His eruption began, he says, in little spots all over him, but mostly on the head. He had never had any large patches, the disease being strictly guttate. It had the further peculiarity that it never affected either the elbows or the knees, the positions known to be those most favourable to psoriasis in its ordinary forms. Mr. E—— had often known his eruption get quite well spontaneously, and he had often been temporarily cured by taking arsenic. His relapses have, he thinks, usually occurred in the spring or autumn. He had throughout preserved excellent health. That the disease is psoriasis essentially, is proved by its long persistence, its scaly patches, and its obedience to arsenical treatment. Mr. E—— is now marbled all over on the skin of the abdomen, chest and thighs. I accidentally made the condition much more conspicuous by ordering a chrysophanic acid ointment, which, by making the skin generally of a darker colour, heightened its contrast with the little white scars.

A late eminent judge had been the subject all his life of this scar-leaving form of psoriasis. He had been treated for it in youth by Sir Benjamin Brodie by arsenic, and was an instance of the occasional influence of that drug in producing epilepsy.

His psoriasis was guttate, and although often nearly well, had persisted, when I saw him, for nearly forty years. He also presented the condition of "marbled skin."

No. XVII.—*A peculiar disease of the skin of the hands in a mulatto, simulating Leucoderma.*

Dr. Wade in September, 1885, sent to me a gentleman of negro blood, whose hands presented a most curious condition. Although very dark, Mr. W—— was not a pure negro. He believed that his mother was so, but his father had a white strain. He was about 45, a barrister of great intelligence. His hands presented white patches, which at first sight I took for leucoderma, but which on more careful examination presented remarkable differences from that malady. In the first place the skin was slightly roughened and a little scaly, and there were distinctly marked patches with abrupt margins, which were slightly scaly, but had not lost colour. Indeed it appeared that a sort of pityriasis condition in nummular patches preceded the loss of pigment. The blanched areas were largest in his palms, and in the middle of them were some round, but not abruptly margined, patches of black pigment. The whole of his left hand, both back and front, was involved in various conditions of epidermic disturbance, with loss of pigmentation in different degrees in different parts. The disease ended about a hand's breadth above his wrist by an abruptly marked edge, presenting convexities which were still advancing. In the right hand the extent of skin involved was much less, and was almost restricted to the palm. Mr. W—— told me that the condition had begun in the left hand, and been confined to it for several years. When five years ago he first consulted Sir Erasmus Wilson, all that he had were a few palish patches slightly scaly in the middle of the left palm. He had no white patches on other parts of his body or limbs, with the doubtful exception of the soles of his feet. His hands had never been in any degree eczematous, and the condition gave him no trouble excepting from its conspicuousness. This was a great annoyance to him in his profession and he was obliged always to wear black gloves.

No. XVIII.—*A case of Leucoderma.*

A young gentleman who was sent to me by Dr. Davies, of Liverpool, afforded an interesting example of leucoderma. He was of dark complexion, and some of the patches were thus made very conspicuous. Some of them, however, were very faintly marked, and required careful looking for. For the most part they were arranged in symmetry, but with one remarkable exception. The most conspicuous and largest patches were over his hips, and these were placed symmetrically, although the patch on the left side was three times as large as that on the right. The contrast between the deeply brown skin of his abdomen and hips was such that it was impossible at first sight not to believe that the pigmentation was in excess, and the same might be said of some patches on his neck. When, however, the white patches were covered so that there could be no effect of contrast, then it was seen that the browning did not exceed physiological possibility, and that it shaded quite evenly into the rest of the adjacent skin. The chief deviation from symmetry occurred on his abdomen. On the right side of the umbilicus there was a round patch as big as a crown piece, perfectly white, which had no representative whatever on the other side. All the patches displayed as usual crescentic or spreading edges. On his face and hands there were some ill-marked patches which I should not have noticed, but which had caused him much annoyance. These were quite symmetrical, and occurred in the clefts of the fingers and near the outer canthi of the eye; they could be seen only in certain lights. He was a healthy man, but remarkable for the extreme hairiness of his body. The hairs grew exactly in the middle line of his chest and abdomen, and in great abundance over his hips, being especially thick in the coccygeal cleft. He was the subject of recurring hæmatinuria, blood appearing in the urine whenever he took a journey.

THERAPEUTICS.

No. VIII.—*Notes on the Cure of Ringworm.*

No doubt there are many good plans of treatment for ringworm, and some remedies which are in an especial manner adapted for particular stages and conditions of the disease. My experience has been restricted almost entirely to chronic cases, and to such as have resisted treatment. I have seen few cases or none in the earliest stage. The treatment which I learned as a student (from the late Mr. Startin), and which was very successful, was the blistering of the patches every ten days or fortnight with a vesicating fluid. It has the disadvantages, however, of being painful, and of bringing the unwilling little patient frequently under the surgeon's hands. In private consultation practice it is almost impracticable, and I have gradually, after trials of many other remedies, settled down in tolerable content upon a plan which relies chiefly upon chrysophanic acid. My prescription, with the very rarest exceptions, is as follows:—The liquor carbonis detergens (Wright's) is used as a wash in the proportion of a teaspoonful to a pint of hot water. With this the scalp is to be well washed twice a week, and all scales and crusts removed. The hair is to be shaven or cut close. The curative ointment, which is to be rubbed in more or less freely, according to its effect, and night or morning, or every night only, by the same rule, is composed as follows—

℞ Acid. Chrysophanic ʒj.
Hydr. Amm.-Chl. gr. xx.
Lanoline ʒj.
Adip. Benzoat. ʒ vi.
Liq. Carbonis Deterg. m x.

Misce fiat Ung.

It will be observed that this differs only from the psoriasis ointment prescribed in the last number of the ARCHIVES in the larger quantity of chrysophanic acid. It is strong enough if freely used, to make most scalps redden and swell, and it may occasionally cause œdema of the eyelids and face. The latter effects occur only when it is too freely used. The child should wear a linen cap, and there is then but little inconvenience from staining. The secret of success consists in the patient continuance of the same remedy. I usually promise with great confidence a cure to the persevering, but never a rapid one. It is only the impatient who are disappointed. Those who at the suggestion of their friends, medical or otherwise, change every few weeks from one remedy to another, find ringworm almost incurable, but it is not so with those who go on with the plan indicated; such at least is my impression. I hear now and then from my medical friends that "there is nothing which will cure ringworm," and that patients in whose cases I have been consulted have not got well; but against these I place an overwhelming number who are most thankful for the result obtained. I have good reason for continued confidence in the plan. In the rapid cure of chronic ringworm I have no faith. In all these the fungus has got into the hair-bulbs and walls of the follicles, and it can be killed only by perseverance. I have never seen a case in which chrysophanic acid, carefully and well used, did not keep the disease in check whilst it was employed. The error usually consists in leaving off too soon. When the case appears to be cured, and the hair is allowed to grow, a weaker ointment should still be used twice a week over the whole scalp to prevent relapse. For this purpose ten grains of the acid, the other ingredients remaining the same, will suffice. It should be continued regularly for six months without interruption. Epilation, as so patiently practised in the Hôpital St. Louis, in Paris, is a very valuable aid in the treatment of ringworm. It is so troublesome, however, that I have found it in consultation practice hardly available, and am usually content to have the scalp shaved once in ten days. It is important that the ointment should be rubbed occasionally all over the scalp, as well as into the patches themselves.

A clergyman who obtained my prescription for his children many years ago, and of whom I heard nothing for long afterwards, subsequently came under my care for another ailment. He then reminded me of the ringworm cases and told me that the ointment had not only cured quickly his own children, but all the cases which had occurred in his parish since. The surgeon to a workhouse school, for which I was consulted on account of long-continued prevalence of ringworm, told me that the ointment had proved much more effectual than anything he had tried before, and that he had since had no reason to try anything else.

Kerion presents almost the only phase of ringworm for which I vary my prescription. In it epilation and the use of a strong evaporating lotion (lead and spirit), is the best plan.

When ringworm prevails in a family or school, I believe that it is important to use oils or pomades for those not affected. To keep the hairs greasy seems to be an efficient means of protecting them. The same measure probably is useful in preventing the spread to other parts of the scalp in cases in which a few patches only are present. It is quite possible that the increased prevalence of ringworm of late years may in part depend upon the change in fashion which has driven out the domestic hair-pomades which were formerly so much in vogue.

No. IX.—*Optic Neuritis in Chlorosis—Dr. Gowers' Letter—Remarks on the Treatment of Chlorotic Anæmia.*

Dr. Gowers has written in *The Lancet* for November 23rd an interesting letter on the form of optic neuritis which occurs in connection with anæmia and chlorosis. He insists that it is curable by iron, and that it usually ends in blindness if iron be not given. Upon this he builds an argument in favour of more wide instruction in the use of the ophthalmoscope, in order that these hazardous cases may be early diagnosed and promptly treated. I quite agree with Dr. Gowers that it is very desirable that all students should be

taught the use of the ophthalmoscope, but having said this, I may admit at once that I much doubt whether it is possible for those engaged in miscellaneous practice to keep up such a knowledge of the instrument and its revelations as to be able to put it to practical use. Excepting to those who have daily opportunities of using it, there is possibly more risk of error than prospect of useful discovery. Such being my misgivings, it is a pleasure to know that a knowledge of the ophthalmoscope is not at all necessary in order to a correct treatment of what we may call chlorotic amaurosis. All that is wanted is a canon in practice that when a chlorotic girl loses her sight her chlorosis should be treated. This rule is also (like many other good rules) that upon which most persons of common sense already act.

There is yet another interesting aspect of this matter. The form of amaurosis with neuritis to which we refer does not come on in early stages, but usually when the anæmia is well advanced. The treatment of anæmia by iron is so almost universal that we may safely assume that nearly all such patients have already had that drug. We do not wait for amaurosis before prescribing iron for chlorosis. We may take it for granted, then, that in most instances the amaurosis has developed in spite of the use of steel. This thought leads to the question whether the indiscriminate use of steel is really the best treatment for chlorosis, and whether there be not some cases in which it does not succeed. Many of us have long recognized the paramount importance of purgation in these cases. Sir Andrew Clark, amongst modern physicians, has especially insisted upon this, and has avowed his faith to be chiefly in what our forefathers would have called "an efficient clearing out of the *primæ viæ*." He has gone further than merely giving us this clinical rule, and has formulated the hypothesis, as to the cause of chlorosis, that it really depends upon blood-poisoning by the products of retained and decomposing fæces.

The practical rule that purgatives should be given with or before tonics is of course very old, and has been well insisted on by Abernethy and a hundred others. It has, however, I think, been somewhat forgotten in the present generation,

and in some quarters the use of purgation has been not only neglected but to some extent decried. Sir Andrew Clark has therefore, I cannot but think, done a most useful work in recalling the attention of the profession to this matter. Intelligent patients sometimes arrive at very just conclusions as to their own ailments, and express themselves tersely. One such once said to me when I was about to prescribe for him, "For me purgatives are tonics."

No. X.—*On Over-doses of Nux Vomica given by Accident.*

Interesting and not unimportant experiments as regards doses are sometimes tried for us by the mistakes of chemists or of patients. I have for many years been in the habit of prescribing the tincture of nux vomica very freely indeed. It seems to me the best of all tonics. It very rarely disagrees, and I have never known it to produce poisonous effects. I generally give ten minims three times a day to an adult, but often double that dose. On one occasion in which I had ordered five minims for a child of ten, a representative of one of our best West-End chemists, to whom the prescription had been taken, was good enough to bring it back and ask whether I really intended it. He seemed much alarmed, and assured me that once in his own shop a gentleman who took from the counter a dose of ten drops had had immediately most alarming symptoms. I assured him that I was quite incredulous, and that I had not the slightest anxiety as to the prescription which I had written. I have myself, for experiment, taken a single dose of thirty drops, and realized no symptoms of strychnia poisoning whatever. I believe the tincture of nux vomica to be a safer and more convenient form than any of the solutions of strychnia, and it has the advantage of not exciting alarm in the patient. It may be taken for months together and does not diminish in efficiency. I have had many cases of patients taking much more than was intended, and never as yet with any serious ill results. They have convinced me that the doses which I have named are well within the mark.

The following is one of the most instructive :—

A gentleman, aged 33, had ten minim doses of tincture of nux vomica ordered, in a mixture of which he was to take two teaspoonfuls three times a day in water. The chemist ordered tablespoonfuls, thus increasing the dose to forty minims. Five doses were taken, and the patient, then remembering that I had told him teaspoonfuls, took the prescription back to the druggist and the error was detected. The only ill result which had been experienced was that the head had been made to feel dull and the eyes heavy, "as if I had been drunk overnight." There had been no muscular twitching.

Whilst this sheet has been passing through the press, another precisely similar accident has come under my notice. The patient again took forty minim doses of the tincture of nux vomica. He continued it three times a day for four doses in succession. It was his own mistake, for the chemist had written out the instructions clearly. The symptoms were exactly as in the other case, a dull feeling in the head, but no twitchings. He felt "wonderfully better for it."

A CATECHISM OF SURGERY; WITH CASES FOR DIAGNOSIS.

(*Continued from page* 192.)

No. XXIII.—*A Pustular Hair-destroying Eruption on the Face.*

A man, aged 29, has suffered for many years from an eruption on his face, which has almost wholly destroyed his whiskers. The skin is left in a state of partial cicatrix, red, shiny, and a little tight. He has lost all his lower lid eyelashes, and is liable to recurring attacks of pustular ophthalmia. He is in good health, and there is no family history of scrofula.

Name the disease on his cheeks.
State its nature.
Has it any connection with the ophthalmia tarsi?
Is it cryptogamic?
How should it be treated?

ANSWER.

The case is one of the commonest form of sycosis. Its essence is suppurative inflammation in and around the hair follicles. It is not cryptogamic. It spreads by local contagion. It is, making allowance for difference of parts, precisely the same disease as that known as tinea tarsi, and it leads to the same results, *i.e.*, entire destruction of the hair-roots, and conversion of the surrounding skin into a state of scar.

From its tendency to spread by contagion, to disorganize the structures and to produce scar, it may be considered to be a near relative of lupus. It differs however from lupus in that it never travels away from the hairy parts of the skin.

The essential points in treatment are systematic and repeated epilation and the use of a mercurial ointment. In early stages the disease is easily arrested, but not in the later ones. It is not uncommon for children, who have had ophthalmia tarsi, to become the subjects in adult life of sycosis of the whiskers, &c. In exceptional cases the scalp and even the nails may be attacked. Now and then the pubes axillæ and whole surface suffer (sycosis universalis).

No. XXIV.—*Recovery of two Sisters from Blindness. Question of Diagnosis.*

A lady of 28 writes to me as follows :—

"Dear Sir,—About fourteen or fifteen years ago I became almost blind, and was under your treatment for about two years, when you made a wonderful cure of me, quite restoring my sight. I daresay you will remember me. My sister, who was also blind as a child (and also under your treatment), and myself are now left entirely alone, and we have supported ourselves ever since as dressmakers. With the exception of my being very short-sighted and obliged to wear spectacles, I have not had anything the matter with my eyes since, until the last three weeks."

What was probably the nature of the disease referred to in the above terms?

State the grounds on which you base your conjectural diagnosis.

ANSWER.

The disease was in all probability interstitial keratitis from inherited syphilis. There is no other known affection of the eye which would be likely to cause any long-persisting condition meriting the term "blindness" and yet capable of recovery.

Above all there is no known disease of the eye, which would be likely to cause blindness in two sisters, *both* of whom should recover.

[The case referred to was an instance of very severe keratitis, and the recovery, although slow, was, as described,

very complete. It is of interest to note that the two sisters, whose ages differed by two years, suffered with almost equal severity; and further, that neither of them presented anything characteristic in physiognomy. The elder one had had her teeth, which were notched, replaced by artificial ones. The teeth of the younger one were not malformed.

As a very exceptional fact indeed, I may add that the elder sister, at the time she wrote the letter, had a small salmon-tinted patch of recent formation on one cornea, and was evidently threatened with a second attack. From this she subsequently soon recovered.]

No. XXV.—*On Anthrax (Woolsorters' Disease).*

To what diseases are the terms "anthrax," "charbon," "woolsorters' disease," "splenic fever," and "malignant pustule" applicable?

What is the treatment for the disease in the human subject?

On what does it depend?

ANSWERS.

They are all names for the same disease. Anthrax and splenic fever are used almost solely in reference to animals.

In the human subject the disease begins from local contagion, and by the formation of a pustule. If this pustule be freely cut out the patient is saved. Hence the great importance of prompt diagnosis, since the disease is fatal if it is allowed to infect the blood.

The bacillus anthracis is found in the blood. It is seen as short rods, a little longer than the width of a red corpuscle. As the disease advances the rods assume the form of long filaments. They multiply with enormous rapidity.

It chiefly affects oxen, but almost all animals are liable to suffer, pigs perhaps excepted. It appears to be connected in animals with malaria, but is very contagious. In man it results only from contagion from animals.

No. XXVI.—*Cowper's description of Mrs. Unwin's Case.*

Cowper, in one of his letters, writes in *January*, 1779:—"I have more items than one by which to remember the late frost; it has cost me the bitterest uneasiness. Mrs. Unwin got a fall on the gravel-walk, covered with ice, which has confined her to an upper chamber ever since. She neither broke nor dislocated any bones; but received such a contusion below the hip as crippled her completely. She now begins to recover, after having been helpless as a child for a whole fortnight; but so slowly at present, that her amendment is even now almost imperceptible."

On March 12th, he adds:—"Mrs. Unwin, though two months ago she fell, is still lame. The severity of the season, which has not suffered her to exercise herself in the open air, has no doubt retarded her recovery; but she recovers, though even more slowly than she walks."

What was probably the nature of Mrs. Unwin's injury? (She was elderly.) What should have been its treatment?

ANSWER.

The most probable diagnosis is that of an impacted fracture of the neck of the femur. This would explain the incapacitation during the first few weeks, and the long-continued lameness. Many such cases recover without any diagnosis having been formed and without any use of splints. Confinement to bed is the measure needed, and this the patient's incapacity to get up secures. There are two dangers in such cases. First, that the surgeon, over zealous for exact diagnosis, may displace the impacted fragments in his endeavour to ascertain whether or not the bone is broken. Second, that the patient may be unwisely encouraged to try to move, or even to use, the limb. If the patient's instincts are allowed their play and absolute rest in bed permitted for a month, with extreme caution in all necessary movements, there is then but little risk of displacement occurring. There is no objection to the use of a straight splint, but it should be employed for fixation purposes only, and not for extension. The case should be designated to the patient as one of fracture, and all further attempts at diagnosis or reduction by extension avoided.

No. XXVII.—*A Recurring Eruption. Is it Urticaria?*

A florid young lady of 29 has been for three years liable to what she calls "nettle-rash." The eruption is never produced by articles of diet, but always follows active exercise. A game at tennis, or a quarter of an hour on a bicycle, invariably covers her with wheals. They begin as little itching red spots and rapidly spread. On the face it is attended by great swelling and disfigurement. The attacks seldom last longer than an hour, and the skin then resumes its natural condition. A warm bath invariably brings out the eruption, and it has sometimes occurred in consequence of sudden excitement, without any over-heating. Her theory is that it takes the place of perspiration, for she says that her skin never perspires excepting in the arm-pits.

Is the case really one of urticaria?

Is it common for urticaria to follow exercise, or exposure to heat?

What remedies are indicated?

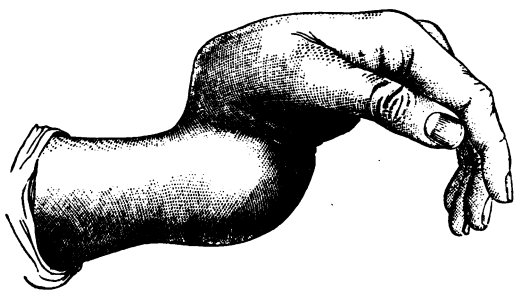
ANSWER.

No doubt the disease is common urticaria of the fugaceous, or transitory variety. It is not at all uncommon, especially in young women, for urticaria to be produced by over-heating. It is quite possible that the patient's suggestion is correct, and that defective, or delayed, relief by perspiration, is a link in the chain of nervous phenomena which constitute urticaria.

The occurrence of urticaria implies excessive mobility on the part of the vaso-motor system, and the remedies should be directed to the restoration of its tone. The late Mr. Startin, who had had great experience, used to say that he had never known urticaria resist the patient use of quinine in combination with an alkali. The patient should wear silk next the skin, so that there may be no local irritation when heated by exercise. Careful endeavours should be made to let the pathological habit which the skin has taken-on lose its force. Thus for some time to come the patient should never get into a hot bath, and never do anything likely to heat the surface.

(Quinine, arsenic, and nux vomica were prescribed in combination.)

No. XXVIII.—



The above woodcut has been executed from a drawing which was made from the hand of a lad of fourteen, just after a fall. Although it may be suspected of exaggeration, it really does not in any great degree misrepresent the amount of displacement which existed.

. What was probably the nature of the injury?

2. How would you distinguish between a detachment of the carpal epiphysis and a true dislocation of the wrist?

3. Which of these accidents is the more common?

4. How would you have attempted reduction in such a case; and would it probably have been easy?

5. What ill result may follow separation of the epiphysis?

ANSWERS.

1. The deformity must be caused either by a complete dorsal dislocation at the wrist, or by a detachment of the carpal epiphysis with complete dorsal displacement.

2. The diagnosis would have been easy of establishment by feeling for the styloid process of the radius. If a detachment of epiphysis, this must go with the carpus; if a dislocation, it would remain, of course, with the radius.

3. Separations of the epiphysis are tolerably common, whilst dislocations at the wrist are of the most extreme rarity.

4. Reduction would have to be attempted by extension and

manipulation with the hand bent backwards. It would probably, with such displacement, be extremely difficult.

4. Defective growth of the radius is apt to follow after injury to the epiphysis, and its effects in shortening the bone will be in proportion to the youth of the patient at the time of the injury. In some cases suppuration may occur.

NOTE.—In the case from which this sketch was taken it was found impracticable to effect reduction, although anæsthetics were given, and much force used. Suppuration followed, and the arm was in the end much crippled.

ARCHIVES OF SURGERY.

APRIL, 1890.

ON HEREDITY IN REFERENCE TO DISEASE.

It is only by a systematic, detailed, and careful appreciation of the various hereditary habits of body predisposing to disease, that we may hope to advance to a natural classification of chronic maladies as we encounter them in practice. Not that inheritance explains all or nearly all. The influences to which a man is exposed after his birth are of course manifold and important. In some cases, however, they are too obvious to be overlooked, whilst in many others their efficiency and mode of action are much modified by the organic peculiarities which have been inherited from former generations. We must begin by the study, not of the disease so called, but of the body which evolves the disease, and having as closely as possible estimated its original proclivities, we may next proceed to investigate the influences which have been more recently brought to bear upon it. In this way, and in this way only, as it seems to me, can we hope to advance beyond the arbitrary and piece-meal nosologies which at present encumber alike our habits of thought and our endeavours to convey our knowledge to others.

Respecting the rough facts as to the hereditary descent of tendencies to disease, I presume that there are not many sceptics. We all believe that a child is in very literal sense the offspring of his parents, and that whilst for convenience we may speak of him as a new being, he is really a perpetuation or continuation of them. Re-production is, as the word

implies, perpetuation only, not creation in any sense. There is no mystery as to a son "taking *after* his father," for he takes *of* his father and, although with a certain very important difference, he is *him*. Every portion of tissue of which the new-born body is composed has been derived from its parents. The nerve cells, the pigment granules, the bones, muscles, skin, hair, nails, blood corpuscles, liver, kidneys, spleen, stomach, glands, every structure that can be mentioned, has been formed not only on the pattern of those of its parents, but actually from them; and partakes of their substance, and will in due time assume to the full their functions.* It is impossible that it should be otherwise, for no new force has been at work, and every result is in exact relation to its cause. The general consequences of these physiological truths are so obvious that they have attracted the attention of even the least-trained observers. Our literature and our household proverbs abound in proofs that the general likeness of children to their parents has not escaped notice; and yet side by side with this wide recognition there is an equally well-founded feeling of doubt and limitation. We may ascribe this mainly to the difficulty which results from the fact that every child has *two* parents, and further to the fact that he inherits not only the qualities of his father and mother, but certain others which may have been wholly latent in them, *i.e.*, those of his more distant predecessors. Sexual

* So far as I can understand them, I am quite unable to accept, in reference to the inheritance of tendency to disease, the recent teaching of Weissmann. The question at issue may perhaps be best stated in the following quotation:—"Our object is to decide whether changes in the soma (the body, as opposed to the germ-cells) which have been produced by the direct action of external influences, including use and disease, can be transmitted; whether they can influence the germ-cells in such a manner that the latter will cause the spontaneous appearance of corresponding changes in the next generation. This is the question which demands an answer; and, as has been shown above, such an answer would decide whether the Lamarkian principle of transformation must be retained or abandoned (Weissmann, p. 410). In order to solve this question we require to know what class of influences can be supposed capable of producing "change in the germ-plasm." Weissmann himself, in a sentence which to many may seem almost like giving up his theory, repudiates the idea that germ changes occur from internal causes (Nägeli's view). He asks, "And how could the germ-plasm be changed except by the operation of external influences, using the words in their widest sense?"

reproduction, with its double parentage and consequent mixture of result, brings the first complication; Atavism brings the second. Were it not for the former, atavism would be unimportant, since were it not for the fresh mixture of parentage in each successive generation, child and parent would be so closely similar, that to say that a new being resembled its parent or its great-grandparent would be to assert the same thing. As it is, every human child has two parents, four grandparents, eight great-grandparents (with but few exceptions), and sixteen great-great-grandparents. To go no further back, it is certainly within possibility that he may inherit in preponderance the qualities and endowments of any one of these thirty individuals, whilst we must admit that at each one of the fifteen marriages a blending of the qualities of two individuals took place of a kind of which it is impossible to calculate the precise results. We can easily conjecture, with such facts before us, that although the laws of hereditary transmission may be very constant, yet their workings may assume the appearance of uncertainty and caprice.

In the following remarks it will be both assumed and asserted that everything that is born with a man and much also that he acquires, he is capable of transmitting to his children. Whether it be a cleft in his iris, a superfluous little finger, the omission of the nerve organization necessary to colour sense, or a tendency to a special form of indigestion, having once occurred it may be transmitted. The facility of transmission varies with the character of the peculiarity and the date at which it has been acquired. Speaking generally, the farther back the date of its origin, whether in the family or the individual, the more certain its transmission; and of congenital abnormalities it is probably true that those which are of the nature of additions are more frequently transmitted than those which are deficiencies, whilst the latter are more prone to appear sporadically and as it were by accident.

A strong distinction may with convenience be drawn between the inheritance of a disease and that of a tendency to disease. I am using the word disease in a rather wide sense, and am making it comprise some conditions which partake rather of the

character of malformations.* A child may inherit syphilis,—in the strictest sense he may take over from his parent the virus itself in a manner which is certain to ensure its full development; he may also inherit colour-blindness, the hæmorrhagic diathesis or ichthyosis; but he cannot be properly said to inherit retinitis pigmentosa, rheumatism, lithiasis, or epilepsy. Respecting these latter, all that can be said is that he may inherit an organization which is likely to develop these diseases or to permit their development. When a tendency is transmitted, the inheritance may be *conditional* or *unconditional*; that is, its development may be certain whatever influences its subject may be brought under, or it may await the effect of exciting causes without which the inheritance will never be realized. The inheritance of tendency to gout, for instance, is probably but seldom so strong as to be unconditional, whereas, so far as we know, that to retinitis pigmentosa is always so. But very few of the transmitted tendencies to disease are absolutely unconditional.† Dr. Joseph Adams, in his "Here-

* It must be remembered that it is, for the most part, the fundamental causes of disease which alone can be transmitted by inheritance. The words which we employ to designate disease are most of them words applicable to results and not to causes. These results are often produced by several causes acting together, or they may be to a certain extent dependent upon what must rank as accident. Thus a man does not, properly speaking, inherit tuberculosis or gout, but he inherits viscera which are liable to disturbance in the directions which may result in those conditions of disease. He does not inherit epilepsy or a tendency to apoplexy, but rather an unstable state of nervous system which may lead to the one, and a liability to disease of the arterial coats which may result in the other.

† Although Weissmann stops short of a denial that the organism may exert a modifying influence on its germ-cells, yet he seeks to reduce this to a minimum. He writes definitely, "In fact, up to the present time, it has never been proved that any changes in general nutrition can modify the molecular structure of the germ-plasm, and far less has it been rendered by any means probable that the germ-cells can be affected by acquired changes which have no influence on the general nutrition." Thus the theory of persistent germ-plasm as the basis of heredity may be put in direct contrast with the older hypothesis, "that the organism produces germ-cells afresh, again and again, and that it produces them entirely from its own substance." It is, of course, far removed from Darwin's conception of pangenesis and from Spencer's of physiological units. It is obvious that under the latter theories the germ-cells, being produced by the organism, may represent all peculiarities possessed by the organism at the moment of their production. This, according to the new theory, is impossible. Weissmann asserts that no peripheral disturbance of nutrition, or hypertrophy

ditary Peculiarities," uses the terms *disposition* and *predisposition* as synonymous with *conditional* and *unconditional.* It is scarcely necessary to state here that the terms *connate* and *congenital* are to be carefully kept to their strict etymological signification; that is, as denoting simply the presence at the time of birth of that to which they are applied. A disease may of course be congenital and yet not inherited, and many are inherited which are by no means obviously congenital; which do not indeed display themselves until long after birth.

It is perhaps doubtful whether it is worth while to attempt to retain in use the somewhat pedantic word *connutrite* as employed by our forefathers to designate diseases derived by lactation from the mother or wet nurse. Obviously such maladies ought not to be confused with those obtained by inheritance. There is, however, another group allied to them for which a special name would be a convenience, and which approach more nearly to true inheritance. I refer to those which are obtained by the fœtus during its intra-uterine life, whether by contamination or as the result of defective nutrition on the part of its mother. Inheritance in its strictest sense might perhaps be said to apply only to the initiation of the new organism, and so far as the father is concerned it is so limited. The father is a parent in only one mode, but the mother in two; she not only supplies the germ, but she exclusively nourishes it during its earliest (*i.e.*, intra-uterine) period of existence. In reference to the production of that

due to local causes, can possibly become inherited. He remarks that an oak which has for generations produced galls under the irritation of the insect's egg, never acquires the slightest tendency to produce galls spontaneously. We may suppose that the first gall was as perfect as the last. They are local phenomena due to local causes, and can by no possibility, in his hypothesis, influence the germ-plasm. Extending the illustration to what is observed in the human body, he asserts that the little exostoses which are not unfrequently caused by rifle-drilling (known as the "drill-bone") cannot possibly become hereditary, nor can the son of a father who has had them be in the least more liable to their production on that account. The fact may perhaps be in both instances as Weissman assumes, and yet it is very possibly true that the tendency of the tissues to react under irritation and to produce in the one case the gall and in the other the exostosis may be definitely increased by inheritance. We are probably dealing with conditional, not unconditional, inheritance.

class of diseases which are in part at least due to food, this is a most important point, and in this respect probably as giving a tendency to such maladies as scrofula, gout, and above all to rickets, it is possible for the mother's influence to far exceed that of the father.

I shall not refer further to the supposed possibility that maternal influence may be brought to bear upon the fœtus through the nervous system, than just to remark that the evidence is most untrustworthy. In the search for the causes of congenital deformities, it will be well to defer as long as possible any recourse to a suggestion so much in opposition to physiological probability. Whatever influences the mother's blood, whether through her emotions or otherwise, may possibly, let it be granted, disturb the nutrition of her child in utero, but further than this we cannot go.

The deformities which are often credited to shocks, fright, and other powerful impressions brought to bear upon the pregnant mother, are usually precisely those which are easily explicable on the known laws of embryo-development. They are such as often prevail in several members of the same family, and not unfrequently in more than one generation. They are equally common in the case of birds, whose eggs during the whole period of embryonic development are certainly beyond all possible reach of maternal influence other than that of physical warmth. In animals which bring forth many young at a single birth congenital deformities occasionally occur, but are usually limited to one only of the litter. If due to maternal impressions, we should have expected them in the whole. Further, it is a fact familiar to us all that in a vast majority of instances of congenital deformity there is no history of maternal shock, and also that whenever such deformities are foretold by mothers, in consequence of such shocks, they are never seen. Surely, with such an array of improbability, we are entitled to put aside the flimsy and often absurd statements by which the attempt is often made, even by those who should know better, to bolster up such stories. This argument is, however, to be distinctly limited to defects supposed to be produced through the mother's nervous system, and does not apply to others in

which the influence may have been sufficient to definitely disturb the blood supply.

There is, however, another way in which a mother may appear to take, and a father may most certainly lose, part of the rightful share in the procreation of offspring. I refer to those cases, now very numerous and well established, in which the offspring presents a definite resemblance not so much to a present husband as to a former one. This has been repeatedly noticed in the human species, but, as might be expected, the most conclusive instances have been witnessed in the lower animals. The College of Surgeons is the possessor of the earliest items of documentary evidence which were collected on this point. Lord Morton bred from an almost pure Arab mare a mule, by a Quagga stallion. This occurred but once, but the two next foals, which the mare subsequently bore to other horses, bore traces of the Quagga markings. Portraits of these animals were with praiseworthy zeal preserved, and are now on the College walls. Lord Morton's narrative has become classic, and it is now well known to illustrate the rule and not the exception. In the breeding of mules it has been noticed over and over again that the subsequent progeny of the mare, so used, always for a certain time have some mule characters, although fathered by well-bred horses. In dogs, cats, sheep, in fact in all animals where crosses have been obtained between individuals of marked features, the same law has been observed. The father of the first born is the progenitor also, in part, of several of those which may be begot by other males. Nor is it only external resemblances that are thus transmitted, for peculiarity of temper and endurance may be obtained in the same way. So constant indeed appears to be the law, that it may even perchance be utilized in the future in the breeding of animals. Thus it may be suggested that if all she-asses were in the first instance coupled with stallion-ponies and allowed to bear mutes, their subsequent progeny by asses might possibly be improved.

I was myself many years ago much interested in this subject, in connection with the influence which a fœtus begot by a syphilitic father appears to exert upon the health

of its mother. A series of experiments were long ago performed by Mr. (now Sir William) Savory, to prove and illustrate the possibility of absorption by the mother from the fœtal fluids. It has, however, been long felt by most that no theory of blood contamination on the part of the mother would suffice to explain the extraordinary phenomena now in question. Such contamination, if it influenced the health of the mother, might also deteriorate the health of a subsequent fœtus, but it could not possibly convey to it the features and physiological development of a former husband. Nor is the suggestion that it is effected through a psychical influence on the mother's imagination any more plausible. I do not know whether Professor Agassiz or our own great teacher Darwin is to be credited with the first suggestion of what is probably the truth. This suggestion is that it is possible for the semen to influence other ova than the one which undergoes development, and that such ova may remain without further tendency to growth until fresh roused by the presence of new spermatozoa. The facts upon which this hypothesis chiefly rests are that in birds, the turkey for instance, a single impregnation is sufficient for a long series of eggs, and that in some turtles repeated acts of intercourse at long intervals (twice a year for four years) are needed to cause the germ to develop. Various other facts, some not unimportant ones quoted by Darwin, respecting the action of pollen upon the ovary in plants, might be adduced, but these are the most striking. They are supported, I think, very strongly by the circumstance that the theory in question does seem to explain the facts, and that none other does so. In further corroboration may be mentioned that this kind of influence of a former impregnation upon subsequent ones appears to be terminable. We do not know its precise limits, but it seems probable that not more than two or three of the subsequent births are (in mammalia at least) so influenced. It is probable also that the shortness of the interval between the first and the second conceptions may be of some importance.

Putting aside the possible influence of disturbing causes such as those just alluded to, I believe it may be said to be probable that the shares taken by the male and female parent

in the development of offspring are nearly equal. In a very large majority of cases the product is a mixed result, in which the mingling and modification of qualities is inextricable. Instances do however occur, and that very frequently, in which there is obviously in the child a greater resemblance to one parent than to the other, or some very definite peculiarity possessed by only one may be inherited. In all instances in which parents transmit to children, the term *immediate inheritance* is appropriate. If it be from father to son, the inheritance is immediate and direct paternal; if from mother to daughter, is immediate direct maternal. As opposed to direct inheritance we have *oblique* or *diagonal*, terms which are applicable when a father transmits qualities to his daughters and a mother to her sons. Mediate inheritance occurs when a grandparent transmits to a grandchild through a parent who is exempt. For marked examples of this generation-skipping or reversion, the term atavism is employed. Curious and almost marvellous examples of atavism will be within the knowledge of all. Not only may one generation be omitted, but a peculiarity of a very definite kind may fail to show itself in several generations and then reappear in force in a remote one. A little consideration will, however, convince us that the marvel is not in its reappearance, but in its long latency. Atavism is really the rule and not the exception, and each generation is, as regards essentials, the medium of transmission from all preceding ones to all those which are to follow. In all essentials we, of course, represent our great grandfathers, and they theirs in turn, and it is absurd to talk of reversion where there never was any material departure. The phenomena to which the term atavism is, however, now commonly applied, are of the nature of peculiarities or supra-additions having often little or no connection with the well-being of the individual. Even respecting these the term reversion is not unobjectionable, for the reality is a projection forwards of the ancestor, not any looking backward of the child. We may plausibly suppose that these individual peculiarities are dependent upon those parts of the organism which are transmitted with the greatest difficulty. The five normal digits have for long been a fixed possession; with a

sixth superfluous one it is otherwise, and hence its maintenance in transmission may be, and probably is, by no means easy.

One of the first and most important questions which we have to ask as regards what is called atavism, is as to whether there is any law or direction of force which favours its occurrence? Is there any sort of alternation of generations, any law under which a man's grandchildren are more likely to resemble him than are his children? I believe that there is a widely-spread impression that such is the case, and certainly not a few facts as regards the transmission of remarkable peculiarities appear to favour it. Some have sought to explain the supposed fact by resort to the hypothesis of sex diagonal transmission, holding that a father transmits his qualities to his daughters and a mother to her sons. This, if true, would however be applicable only to those peculiarities which show a preference for one or the other sex. It is supposed, for example, to explain hæmophilia and colour-blindness, both of which are almost peculiar to males, and seem to be usually inherited from the mother. If there be any wider law than this which would include both sexes, the alternation would probably amount about to this, that a man transmits his substratum of constitution to his children, but is unable to transmit his personal peculiarities; that the latter require, as it were, a rest, and that after this rest or latency in the individuals of one generation they are able to reappear with original or even increased vigour in the third. Such a tendency is easily conceivable, and may be sometimes a reality, but I doubt whether the facts when critically examined will be found to give it support. They are, however, as yet under debate, and I shall have to allude to them again, and to mention in detail some of the facts which concern them.

Before we attempt to go further in this direction, it will be well to investigate a certain disturbing influence which is always at hand to belie and invalidate our conclusions. I allude to prepotency, or an unusual power of influencing offspring which is possessed not infrequently by individuals

of either sex. It is by no means the same as aptitude for procreation, although it is frequently associated with it, but consists rather in a peculiar power of impressing the character of its possessor on offspring without regard to the number produced. As a rule it is believed to be the attribute of high breeding and force of individuality, for it is always observed that representatives of a pure race which, possessing marked characteristics, has been kept for many generations unmixed, will be prepotent as regards one of mixed descent. In individuals of equally pure race however, and quite without regard to state of health and vigour, the possession of prepotency may be proved, and very often we must be content to recognize without being able in any way to explain it. It concerns itself with great and with little achievements alike, sometimes stamping in the most unmistakable manner the whole conformation of the offspring; at others conferring simply a superfluous little finger or destroying the perception of red as a colour. It is by no means proved that when these little peculiarities are transmitted they imply modification of the whole being in the direction of likeness to the parent from whom they are derived; indeed the opposite is often known to be the case. It seems probable that prepotency may concern itself with almost any single feature, endowment, organ or part of organ in the body.

A white cat possessing a few black hairs in her forehead bore kittens to a tom which was wholly black. All the kittens were entirely black with the exception of a small white patch on the forehead. The tom was here prepotent, for the usual result of such a cross is either black and white or nearly equal numbers of blacks and whites. Breeders of horses and cattle are well familiar with the fact that some bulls and stallions impress upon their progeny their own characteristics with great certainty, whilst others quite fail to do so. Marked instances are on record where of two brother stallions one always showed prepotency and the other never, thus conclusively proving that it is often an individual endowment. Sometimes the power is so absolute that it obtains with all individuals of the opposite sex; at others it

is only relative and may fail with one and succeed with another. It may, in brief, be considered to be equivalent with growth-power or life-vigour.

To attempt the specification of the laws under which the power of prepotency is most frequently manifested, we may with some caution mention the following points:

1st. If in other respects the balance be nearly even, each sex will show a slight degree of prepotency in respect to offspring of the same sex; that is, the female children will, in other respects than those directly connected with sex, resemble their mother, and the males their father. This law perhaps underlies the very curious facts as regards sex limitation in the transmission of peculiarities through many generations. Upon this subject a very valuable essay has been written by Dr. Sedgwick, to which I am indebted for several of the cases which I shall mention.

2nd. If the balance be in other respects nearly even, the male parent is usually in a slight degree prepotent as regards the female. This law is of course somewhat contracted by the preceding, the result being that offspring of both sexes partake rather more of the qualities of the father than of the mother, and that the inequality is greatest in the males.

3rd. Immediately on the assertion of these general laws, admittedly of only slight power, we must add another, namely, that either sex may so preponderate over the other as to entirely efface their operation, and this not only as regards qualities which may be supposed to be neutral, but those also which specially pertain to sex.*

Each sex must be supposed to comprise the other in a latent or suppressed form. Perhaps the most pointed illustration which I can give of the law just referred to, is the fact that cattle breeders in examining a bull pay attention amongst other points to the number and arrangement of his teats, knowing that they will indicate his probable power to

* Very unusual prolificacity may probably be safely credited in most instances to the mother. It is quite possible that it indicates on her part unusual vigour and growth power of the kind which produces prepotency. I have repeatedly been struck with the fact that in cases of remarkable family prevalence of peculiarity, the family was remarkably large.

beget female offspring that will milk well. There is nothing that should astonish us in the fact that hypospadias may be inherited on the mother's side.

4th. It seems probable that prepotency may sometimes even determine sex itself. The influences which determine sex are surrounded by mystery, but it is impossible to resist the belief that in some instances personal peculiarities in the parent are sufficient, supported as it is by the numerous instances on record in which the most conspicuous inequality in numbers have occurred in the progeny of certain individuals. I had myself a boar pig to whom three several sows produced twenty-seven pigs, all excepting three being females, the inference being that in him prepotency was decidedly defective.

5th. Prepotency may either develop organs or faculties in excess, or it may favour their defect or suppression. This we see definitely illustrated by the two classes of cases in which children are born with superfluous digits or with defective development of them. The latter, as already remarked, is however far less commonly transmitted than is redundancy. I possess, however, a sketch which shows the hands of a father and son now living at Hitchin, patients of Mr. Richard Shilleto, which illustrates in a very remarkable manner the hereditary transmission of a deficiency. The same tendency is occasionally seen in harelip, hypospadias and many other conditions. Under the known laws of correlation of parts, prepotency also often works in favouring the simultaneous production of excesses and defects.

6th. Prepotency is itself transmissible, and is also, like other characteristics, subject to latency. Stock breeders avail themselves largely of this fact, and a male becomes valuable not only in respect to his individual characters, but in proportion to the certainty with which he transmits those characters to his offspring.

7th. As has been just observed, prepotency in one thing by no means implies it in all, and it thus becomes possible that in the same offspring evidences of the prepotency of both parents may be observed. This is probably not unfrequently the case when some minor defect or superfluity is concerned.

A son may have inherited his breast-pin from his father, whilst the bulk of his fortune may have come on his mother's side.

A word may here perhaps be suitably said as to the estimation for purposes of diagnosis or otherwise of what is sometimes called *collateral descent*. It is obvious that in respect to vital tendencies a man can inherit nothing from his uncles. Yet the history of collateral relations, assuming always of course that they are certainly of the same stock, is of the utmost value in determining whether or not an individual inherits any given tendency. For the uncles and cousins and even more distant relatives are specimens of the race, and the liabilities with which we have to deal are usually matters of family possession. Our human laws as to property here part company with those of nature respecting disease. Nature knows but little of primogeniture, and nothing whatever of entail, and under the laws of prepotency, latency, and atavism, her bequests may easily appear to pass in irregular and unexpected directions.

After this review of the facts as to possible prepotency, we shall be in a far better position to estimate the evidence as to the relative influence of the two sexes on offspring. Once forget or deny the influence of prepotency, nothing is easier than to make almost any dogma seem probable on this subject. As regards the suggestion that a tendency to atavism (or generation-skipping) is the rule, we must remember that some of the examples of it supposed to be most definite, are equally well explained by the suggestion that the wife was prepotent in the one generation, and the husband in the second. So also with limitation of disease in several generations to one sex, it may be that here is nothing but the prepotency of the father in respect only to offspring of his own sex. I confess that it seems to me probable that this is the true explanation, and that it is not likely that there exists any tendency to atavism as a rule. Its remarkable manifestations are more probably to be regarded as exceptional, and as instances of interrupted prepotency.

It is necessary to say a few words in more detail as to what is known as to the relative influence of the two sexes in deter-

mining peculiarities in the offspring. As I shall in further parts of my paper have to recur again to this as it concerns the transmission of disease, and malformation, I will for the present be almost silent on these departments, and refer only to the physiological facts obtained by crossing. It is well known that many axioms are current amongst those familiar with animals on these points. We are assured with great confidence that a law obtains under which the female contributes the nutrition and vascular systems, and the male those which determine the general form. Another theory is that propagation is done by halves, the male contributing the back, loins, hindquarters, shape, skin and size, and the mother the head, forequarters, vital and nervous systems. It is admitted by the originator of this ingenious theory, a distinguished practical observer, that these divisions of labour may sometimes be reversed. I mention them in order to remark that the experience of practical breeders must not on these subjects be allowed undue weight, and in confirmation of this may state that Mr. Spooner is quite sure that size is governed by the male parent, and Mr. Orton equally certain that it follows the female. We may, I believe, safely take the middle course, and rejecting both creeds, hold that excepting when disturbed by prepotency, or other individual inequality, the two sexes share in very nearly equal proportions in the endowment of offspring, and that consequently we must not expect to find disease of special organs more easily heritable from one parent than the other. This is, as will be seen, a very important conclusion, and as part of the evidence on which I rely for its proof consists in facts somewhat at variance with those which I find in books, I may be permitted in conclusion to advert to them. The horse and the ass will breed together easily, and the cross may be either that of the jackass with the mare, or of a stallion pony with a she-ass. These animals are familiar to us, and their differences might have been supposed to be sufficiently marked to allow of our estimating with much accuracy their relative prevalence in offspring.

The offspring of a mare by an ass is known as a mule, and is very common; that of a she-ass by a stallion is a "mute" or

"hinny," and is much less so. Mr. Orton, who is an authority on this subject, asserts that it is clearly evident that in external characteristics the male in each instance predominates in the offspring, and that the mule is a modified ass, and the mute a modified horse.

Such observations as I have myself been able to make oblige me to differ from Mr. Orton's statements, and to assert that the facts as to mule-breeding, while they often illustrate very forcibly the laws of prepotency, and give us most instructive insight as to the working of certain other laws of transmission, do not exhibit any definite or constant preponderance of one or the other sex, either generally or in respect to special organs. There are many mules which so much resemble their mothers in coat, build, tail and mane, that you have to look at the head and ears, or the feet, before you can determine the animal. There are others which have the ass's tail and mane, and it may be the dark stripe down the back and the cross on the shoulders so frequently seen on the ass. It is true that a mule is a modified ass, but it is equally true that he is a modified horse. One remarkable fact we must note, that however strongly in single instances the prepotency of either parent may be shown, it never amounts to anything approaching a suppression of the other. We never see either a mule or a mute which cannot on inspection be easily recognized. The nearest to this which I have ever myself observed occurs in a very pretty little animal which I often pass in the streets, drawing with great spirit a costermonger's cart. It has the coat of an ass, and looks so like one that my coachman calls it a donkey. It has, however, a bushy tail, and a mane that droops sufficiently to admit of its being plaited.* There is yet another character to

* For practical purposes, a mule is a horse (after its mother) with the power of endurance and sagacity of an ass (after its father). A mute or hinny is an ass in size, and although superior in docility to an ass, and perhaps a little in endurance to a horse, has no real advantage over a pony. Hence hinnies are but little bred. In each case the offspring is infertile (with the rarest exceptions). Usually it is easy to distinguish at sight a hinny from a mule. The ears, which are a conspicuous feature, are, I think, always a mixed result. I never saw either a hinny or mule with ears that were as large as those of an ass or as small as those of a horse. The tail also is, I think, never quite

which I have not alluded, which distinguishes in a definite manner horses from asses, and which enables us to estimate the preponderance of either parent in the offspring. I refer to the curious callosities ("chestnuts," as sometimes named) which are seen on the legs of both. There are four in the horse, and only two in the ass. They occur just above the knee (*i.e.*, the wrist) in the fore limbs, and just below the hock (*i.e.*, the heel) in the hind ones. In the ass those only on the fore legs are present, and they are much softer and more leather-like than those of the horse. I have the highest authority for stating that nothing is definitely known as to what these curious bald papillary patches of skin mean, or of what they are representative. Now the horse having four, and the ass only two, let us see how it stands with their hybrids. In the mule, with the exception of perhaps one animal in twenty, there are always four. Those on the fore legs are never, so far as I have observed, wanting, but those on the hind ones may be so occasionally, and are often very small. In the little ass-like mute which I have just described, there are curiously enough, I believe, no callosities at all. So much for the assertion that in mules the ass predominates, and in the mute the horse. In England we have but few opportunities for examining mutes, and as they are always those bred from the small English donkey, their small size always enables us to distinguish them from mules. There comes, however, from an American plantation, where large asses are kept and mule breeding attended to, the positive assertion that it is often quite impossible to distinguish

characteristic of either animal. The mule inherits from his father (an ass)—great endurance, ability to thrive on scant and coarse food, temper, an obstinate disposition, longevity, long ears, lightness of legs, surefootedness. "In reason, memory, obstinacy, and social affection, the mule excels either parent" (Darwin). In all these he inherits from his father. From his mother (the mare)—size; colour and texture of coat; tail, with hairs to its root (variable); mane more or less flowing (variable); callosities in the hind legs as well as the fore ones. A hinny inherits from his father (a pony)—temper; general appearance (not always); colour and texture of coat (not always); tail and mane (variable); constitution, as regards power, endurance, and longevity. From his mother (an ass)—size; ears; coat (variable); lightness of legs; callosities on fore legs only, or even none at all.

between a mule and a mute. We learn, then, from this very definite example, that there is no real ground for the assertion that in hybrids the influence of either parent preponderates greatly in the offspring. We become incredulous as to there being any recognizable laws as to the share which each takes. We may, however, yet learn something more. It is often asserted that there is a law of diagonal inheritance, by which the daughter takes after her father and the son after his mother. If this be so, we ought to see its effect most obviously in the case of mules, where the two parents differ so much. But we do not. At the Peckham stables for the supply of the South London Tramways about three hundred mules are at present kept, and any one who will visit these stables may easily convince himself that there is nothing in the conformation of the mares by which they may be distinguished from the jacks. The stable-men tell me further that there is nothing in temper or power of endurance to differentiate them.*

* Never by any chance is an animal produced so exclusively resembling either parent as to be indistinguishable. A mule never closely resembles an ass, and from a horse its ears alone always suffice to distinguish it. Goats and sheep will breed together, but I am not aware of any observations which have reference to the special preponderance of either parent in relation to the sexes of the latter. The above remark also applies, I believe, to the crossing of hares and rabbits, the camel and dromedary, wolf and dog.

(*To be continued.*)

ON THE THEORY OF CATARRHAL FEVERS AND INFLUENZAS.

I WILL begin with the proposition that there is such a thing as *Reflex Catarrhal Inflammation*, and that it is attended by what we may suitably recognize as *Catarrhal Fever*. Without any exposure to contagion, without having experienced anything of a nature to seriously reduce the bodily vigour, but after some quite short, and apparently trivial, exposure to cold —it may have been damp feet or it may have been a draught of cold wind on the head—a state of nerve-disturbance may occur to which we give the name of "a cold." Such colds may present great variety of kind, but I will take for present purpose a type-form. A sensation of discomfort warns the cold-catcher that something is about to go wrong. He feels probably a little creepy or chilly, then follows a salt taste in the back of the throat and next a tendency to sneeze. Profuse discharge of nasal mucus soon sets in—the blood-vessels of the mucous membrane being dilated and the glands in most vigorous action. With this there is great general discomfort, minor rigors, extreme susceptibility to cold, desire for warmth, high temperatures, a dry skin, high-coloured urine, aching in the head, limbs, and back. The attack if severe will last one, two, or three days, and then will show a tendency to spontaneous decline. The more rapid its development, usually the more rapid its decline, and *vice versâ*. Whether longer or shorter, whether slight or severe, every one expects his cold "to go off" after a little time. Spontaneous cessation and the observing of stages are almost as much matters of rule in reference to common catarrhs, as they are with any of the specific fevers.

Here let me ask very seriously, whether it would not be convenient that the term *Catarrhal* should be kept strictly for this class of maladies. A cold in the head, which I have

taken as the type-form, is only one of a class. Some persons on catching cold have inflammation not of the nasal chambers but of the throat, others of the bronchial mucous membrane, others, it may be, of the bowels. Let our definition take cognizance of cause, of essential pathogenetic sameness, and not of variable results. Let every reflex disturbance of function resulting directly from the exposure of some more or less distant part of the surface to cold or damp be known as catarrhal, and let nothing else be so named. In this way we shall construct a quite natural group of maladies, and shall be able subsequently to place beside them others, more or less cognate. There must, however, be no confusion of terms.

A distinction must be drawn between inflammations which result from the direct exposure of the part to cold and those which I have described above as of reflex origin. For example, if an eye or an ear inflame in consequence of the direct influence of cold, the condition of things is different from that which we encounter in true catarrh. First we have the inflammation restricted to the part affected; it does not usually spread to the other ear or the other eye. Next the character and degree of the inflammation are usually in ratio to the degree of exposure, whereas in true catarrhal affections the exposure may have been absurdly disproportionate to the severity of the results. Lastly, the constitutional disturbances resulting from such a purely local inflammation are often slight, and they always remain proportionate to the extent and severity of the local disturbance. Local inflammations due to direct exposure of the part attacked to wind or cold often assume an erysipelatous type. Although cognate, they are clinically very different from those of the true (reflex) catarrhal group.

To write an account of catarrhal maladies is not my intention on the present occasion, for it would take much space. It is a subject of the utmost importance and interest, but my present purpose concerns only definitions, and classification, and I must restrict descriptions as much as possible. I will therefore confine myself to a few general propositions. The reader must pardon me if I state these categorically.

1. Our definition of *catarrhal*, as given above, has been an

inflammation excited wholly through the medium of nerve disturbance, *i.e.* in a reflex manner.

2. Such inflammations are always bilateral, never local merely.

3. They are always attended by much constitutional disturbance and preceded by tendency to rigor.

4. In connection with the rigor, although the latter may be very ill marked, there is often herpes of the lips.

5. Different individuals vary very much in their degree of susceptibility to these nervous disturbances, but all are more or less liable.

6. The degree of liability has often nothing to do with the degree of vigour of general health.

7. Not man only, but our domesticated animals also are very liable to suffer from true catarrhal inflammations.

8. A severe catarrhal attack, when once well over, seems to give a period of immunity. This immunity is proportionate to the definite character and severity of the attack. Short and slight attacks give but short periods of immunity.

9. Spontaneous decline and complete disappearance is the general rule in catarrhal affections.

10. Although catarrhal affections decline spontaneously, yet during their decline the patient is often very susceptible, and may from incautious exposure easily incur other risks. The nasal catarrh does not return as such, but pleurisy, bronchitis, pneumonia or enteritis may be set up.

11. In some persons catarrhal affections are provoked very easily and become very frequent; in others, they recur only after long intervals. The degree of severity is often in proportion to the length of the interval.

Thus far I have dealt with catarrhal affections as capable not exactly of "spontaneous" origin, but of origin in connection with physical influences such as cold and damp. I have said that they may be produced in perfectly healthy men and animals, and may now venture to suggest that probably no organisms possessing a nervous system are free from the liability to reflex disturbances of this kind. My next proposition is one of extreme importance, and which may be received with hesitation. It is no less than

that inflammations which have originated as described above are capable of generating a contagious materies, and of spreading from person to person by infection. It is difficult in the instance of a disease so common and so very easily originated as common catarrh, to prove that it is ever caused by contagion. I may appeal, however, to a very general popular conviction that "colds go through the house," and to the fact that when colds are prevalent it is common for those to suffer who have not been exposed, so far as was known, to the influences which usually produce them. It is impossible, I may repeat, to give conclusive proof, but probably I shall encounter little scepticism in the proposition that risk attends being in company with a person suffering from a severe cold. If any one should allege that there are two forms of catarrh, one from exposure to physical influences and the other from reception of a vital contagion, then I have to reply that they are in symptoms wholly indistinguishable. They may possibly be quite distinct, but they cannot be differentiated. Not only does general experience uphold the proposition that colds are catching in reference to human beings; but it is a matter of general belief that the colds of cats, dogs, and horses are communicable to man, and that the worst family epidemics of catarrh are those in which the disease spread either from a cat to the household generally, or from a horse to the groom, and from the groom to the indoor servants, and so onwards. These are, it is true, only matters of popular creed, but there is much evidence in their support. That catarrh is contagious in the lower animals, all who have to do with them believe. I have known a whole flock of sheep suffer from it, and numbers of them to show herpes on their lips at the same time. All grooms think that colds may run through the stables.

I have given much attention to the question of the possible contagiousness of true catarrhs, because it is a matter of the widest bearing and importance. If we admit that an inflammation produced in a vitalized organism by a physical and non-vital cause may be attended by the evolution of a materies which has capacity to convey, not a mere imitation,

but precisely the same type and character of inflammatory action we grant that which may be made to explain much that has hitherto been very difficult of explanation in respect to specific disorders (inflammations and fevers). If catarrhs are contagious, no one nowadays will, I expect, be prepared to deny that they are probably attended by the development of microbes which serve as the carriers of the contagion, or the generators in the next subject of the specialized inflammatory action. It is not needful at present to state any creed as to the origin or mode of specialization of these microbes. No theory of spontaneous origin is pre-supposed, and this part of the inquiry may be left aside. It may be well, however, to seek for the theory advanced such support as collateral facts may afford it. We have, it seems to me, in erysipelas a close parallel. Erysipelatous inflammation may originate easily from the direct exposure of a part to cold air. What is called medical erysipelas, or that of the face and head, is constantly so obtained. Some persons have it over and over again, always from some well recognized exposure. Yet this kind of spontaneous erysipelas does not essentially differ from that which attacks wounds. It is as contagious as the latter is both to the individual and to others, and it is attended by the same microbe. Here, then, we have an instance of a disease which originates independently of contagion becoming contagious. It may be suspected that there are many others, and that in fact it is a power possessed by almost all forms of inflammation to develop something which may cause contagion.

To pursue a little further the question of the genesis of erysipelas, let any one reflect on the facts, and I shall be much surprised if he can escape the conclusion that an act of inflammation in some way breeds up a special material for contagion. I do not hint at anything like spontaneous generation, but only at the breeding up or specialization of elements which were no doubt pre-existent. Who can believe that erysipelas is always due to a specific contagium in the sense that smallpox is so? Even if we doubt the contagiousness of medical erysipelas of the head and face from exposure, and hold that it is quite distinct from that which affects wounds,

still what are the facts as regards the latter? It may begin anywhere, on board ship, or in a country cottage, as well as in a hospital, in fact wherever there is a badly-treated wound. That it becomes contagious in a virulent degree, no one who knows anything of hospital experience of it or of spreading puerperal fever can doubt. Were it, however, solely due to contagion, its proper recipients are so sparsely scattered and have now been for many years so well protected, that I cannot but think that it would have died out long ago.

If I may venture to repeat my argument, I would say that it is impossible for any one, however strong his faith in the specific microbe of erysipelas, to place this malady in the same category as small-pox, scarlet fever, or syphilis. Its clinical history, as I have already hinted, is wholly different. We recognize, it is true, epidemics of erysipelas, but they obey laws which are very different from those of small-pox. Were it, like the latter, incapable of spontaneous origin, we might expect that certain districts and countries and certain periods of time would be wholly free from it. No such facts are, however, witnessed. The erysipelatous type of inflammation may occur anywhere and at any time. It is therefore presumably capable of origin, like catarrh, independently of direct contagion.*

The epidemic of "Influenza" through which we have just passed gives point to the preceding observations. The subject of catarrh is in itself however, I must think, of sufficient importance to Englishmen to claim far more attention than it has yet received. Could we rightly name the diseases which bring about our deaths, I doubt whether it would be an over-

* I trust that nothing which is said in the text will lead the reader to think that I place erysipelatous inflammations in the same group as catarrhal ones. They are cited together simply as both giving support to the belief that a contagious material may take its origin in an inflammation not itself the consequence of contagion. In erysipelas, when spontaneous, the cause is direct exposure of the part affected to cold, whilst in true catarrh the exposure is of some other part, and the chain of causation calls into play the reflex functions of the nervous system. In this the two have a definite difference as to mode of origin. It is needless to point out that the course of erysipelas is very different from that of a catarrhal fever. They are, however, alike in this, and both equally differ from the specific fevers in that one attack does not prevent others but rather gives proclivity to them.

estimate to ascribe a third part of the British mortality to catarrhal affections. Although I have distinctly claimed both for catarrh and erysipelas that, beginning from locally applied causes, they may become contagious, it is obviously to be admitted that their infective powers are at the worst limited. We do not witness widespread epidemics of either. Our impressions on this point may be, however, to some extent merely the result of ignorance. It is part of my general argument that the contagious materies may in all contagious maladies be developed under favouring circumstances into specially virulent forms. Thus it may be that the poison of influenza is the same in origin as that of contagious catarrh, but bred up under special conditions to a specialized form. Those conditions may possibly be commenced in a certain race of men, in certain of the lower animals, or under peculiar conditions of atmosphere. It would be wrong to speak of the virus of influenza as being necessarily more virulent than that of catarrh, and many attacks of it are far less serious than many of catarrh from contagion, but it is admittedly much more potent for contagion. Its germs have probably longer vitality outside the body, and may be conveyed in letters, clothing, &c., far further than can the ordinary contagion of catarrh. Hence one of the differences is its power of epidemic and extensive diffusion.* Other differences are, however, conspicuous, and chief among them that influenza has lost to a large extent the tendency to produce the mucous defluxions usually so definite in catarrh.† At the same time the rheu-

† My own experience has been that so far from excessive flow of nasal mucus, the nostrils shared with the skin in dryness.

* Although there may be many who doubt that infection explains all the phenomena of the spread of influenza, I presume that few familiar with the facts doubt that it is infectious. That its poison breeds and increases in the human body there can be no question, and equally little that proximity to a body in which it has bred is attended with special risk. In asserting this it is not necessary to deny the possibility of almost indefinite atmospheric diffusion, although we may think it improbable. For the benefit of those who doubt its infective powers altogether it may be well to recall such facts as the following:—

The Rev. C. S. J. Whitmore records in the article Polynesia (Cycl. Brit.), that he once visited the Ellice group a fortnight after a trading vessel had been there with influenza on board. The vessel had carried some of the natives from

matic part of the catarrhal fever is in influenza much exaggerated, and it is constantly attended by achings in bones, muscles, fascia, and joints.

At this point of my argument a digression may be allowed to consider the question as to whether the Sweating Sickness—"English," as it was christened—was not a form of catarrhal fever, a very virulent influenza in fact. Many of the statements concerning it would support such a proposition. Its chief difference was indeed its high rate of mortality, and this, although common, was not universal. Its onset, like that of influenza, was very sudden, and attended by faintness and giddiness. It was followed by sleepiness—a symptom which has, I believe, been recently often observed in influenza. The danger was over in many cases in two, three, or four days, a point in which the divergence from such fevers as plague, typhus, and typhoid, is very marked. It attacked, seemingly by preference, young and vigorous adults. The profuse sweating which attended most cases might be deemed the analogue of the nasal hyper-secretion in catarrh. Some types of influenza have dry nostrils, and some profuse secretion, and some, I believe, show a tendency, when developed, to free sweating. Hecker, as is well known, was persuaded from similarity of symptoms that the Sweating Sickness was a very acute and brief form of rheumatic fever. In reply to this, however, we know of no form of rheumatism which is supposed to be in any degree contagious.

The short duration of the epidemics of "The Sweat," its sudden onset and rapid and complete decline, as well as its manner and speed of spreading from place to place, are all features in which in the closest possible manner it resembled

one island to another. The result was that on three islands the entire population was suffering from the disease. Writing of the epidemic of 1782, a surgeon who resided at Ipswich records that he went to London, and there fell ill with influenza. He travelled home during the night of the last day in May, being then sickening of it. No cases had as yet occurred in Ipswich, "but a few days after I had several, though none so debilitated as myself." After that it spread through the whole town. See "Annals of Influenza," p. 167.

Influenza in the horse and dog would appear to be closely similar to the human disease, and to have like sequelæ. In the United States it is believed to spread around the foci in which it originates.

influenza and differed from the other maladies with which it has been compared.*

So similar have been some of the more severe epidemics of Influenza to the Sweating Sickness, that they have at the outset been mistaken by those who observed them for it, the mistake being corrected only when the comparative mildness of the malady became evident.

Such being the facts, I feel little hesitation in claiming the Sweating Sickness as, not influenza, but one of the same group—a catarrhal fever become contagious, and therefore epidemic. It does not appear to me to have any real analogies with either typhus or typhoid, and far less with plague.† Such, then, being its suggested position, a few words must be said as to the illustrations which it affords of the laws of the genesis and contagiousness of this class of fevers. Epidemics of the sweat have apparently been repeatedly developed spontaneously. One such, the first in England,‡ beginning in Richmond's army, was within an ace of preventing the battle of Bosworth, and thus crushing in the egg the Tudor dynasty. No one knew how it had developed. During the next half-century both Henry VII. and Henry VIII. had repeatedly to retire to country seclusion in order to avoid it, whilst in every instance its outbreak was sudden and apparently causeless. It spread from place to place so rapidly that people doubted whether it were infectious or "in the air," yet it did not go beyond the British shores until a vessel with a considerable number of young Englishmen on board landed them at Hamburg suffering from the malady, when in the course of a few days it spread to the townspeople.§ The lateness of this occurrence may indicate that

* We may regard the "Picardy sweat" as a mild form of sweating sickness. The Trousse Gallant, a contagious fever which affected chiefly young men (but not exclusively) and was very fatal, was also probably of the same class.

† Kaye and Meade thought it a variety of the plague. Cullen argued in favour of typhus, and Willan held that it might have been due to bad wheat. As I have said, Hecker considers it rheumatic fever.

‡ If the facts were correctly known, it is probable that the sweating sickness had been frequent on the continent before its first accredited outbreak in England in Richmond's army.

§ Surely we can but regard Hecker's argument that the Hamburgers took the

the virus of the disease is of but short life—a supposition which would fit with the rest of what we know. Thus a voyage across the channel had hitherto been sufficient to let it die out. In the case in question, the number of young persons on board supplied precisely the kind of pabulum needed to keep it going by transmission from one to the other till the port was reached, and to land it in a still vigorous condition.

In subsequent epidemics the continent suffered rather widely, but with much irregularity, and when not aggravated by injudicious treatment the fever proved milder than it had been in England.

We may perhaps group the catarrhal fevers as follows:

Primary catarrhal fever of so-called spontaneous origin (that is due to "catching cold"). To this many forms of laryngitis, bronchitis, pleurisy, pneumonia, &c., belong, and it is the cause, especially in those past middle life, of many deaths.

Catarrhal fever from contagion, due not to exposure to cold, but to inhalation of the breath of those suffering from catarrh. Often constituting a house epidemic, but seldom spreading very widely. Often showing certain features of specialization —for instance, sore throats, great debility.

Influenza, in other words, *epidemic catarrhal fever*. Of this disease no two epidemics are quite alike. It occurs in all parts of the world, and sometimes appears to be developed spontaneously.

The Sweating Sickness, a very intense and fatal form of influenza, but far less capable than the latter of rapid and extensive diffusion.*

To these I should much like to add, if I dare, Rheumatic Fever, as being in the main a mode which primary catarrhal fever sometimes takes in those of inherited predisposition to arthritic disorders. As already stated, it, however, never becomes contagious.

Sweat from the fogs of the North Sea, and not from the English ship, as an example of a failure of the logical faculty under the influence of a theory in possession. He is unwilling to admit contagion.

* It must not be forgotten when we contrast the limited spreading of the Sweat in the sixteenth century with what we observe of the influenza now that the freedom of transit from place to place has been enormously developed. Human beings now pass with such rapidity over great distances and with so much ease that the chances of diffusion of an infectious disease are vastly increased.

I am not unaware that in what I have written above I have ventured on an exceedingly difficult subject. There is difficulty alike to thinking clearly and in expressing the results of thought intelligibly to others. My apology for attempting it must be its importance. On all hands the modern pathologist is beset with problems as to the more or less permanent specificity of contagia and their relation to the inflammatory process. My proposition, if I have succeeded in making my meaning clear, has been that contagia possessing a temporary specificity are very easily brought into being in connexion with most types of the inflammatory process. Under certain conditions such contagia may be bred up into higher states of virulence, and then a malady of spontaneous origin, in the first instance, *quoad* contagion, becomes epidemic. It is not difficult under such an hypothesis to see why no two epidemics are precisely the same. The contagion in each has probably but a short life-period, and in the case of common diseases is frequently being renewed. All that is true of epidemics of catarrhal fever, is probably so of such maladies as diphtheria and the like. In the latter we have again a contagious inflammatory process which was developed in the first instance without contagion. The remarkable difference in degrees of severity in different epidemics of diphtheria has often been remarked. To those who insist that the term "catarrhal" shall have no more precise or conventional meaning than its etymological one, what I have written will seem confusing if not absurd. We have, however, in use the two words catarrh and coryza, and my proposal is to designate the secretion of nasal mucus by the latter term, and to give to the former a wider but more specific meaning. Thus we may have a catarrh without coryza, and coryza (as in the case of iodism) without catarrh. The latter term should always imply reflex disturbance and fever.

HYDATID CYST OF ENORMOUS SIZE.

The case which I have to relate is one which deals with the operative treatment of hydatid cysts in the abdomen. It concerns one of the very largest cysts which I have ever seen or of which I have read any account. I was in the first instance consulted by Dr. Kay, of Whitechapel, in the case of a boy who was the son of a friend of his, and who had been brought up from the country, for advice respecting an abdominal tumour. This was about twelve years ago, and the boy was then about twelve years of age. I diagnosed an hydatid cyst of the liver, and advised its puncture with an aspirator. This we did, and drew off about a pint of perfectly clear fluid, respecting the nature of which there could be no doubt. After the puncture the cyst remained for long of quite small size (not larger than a small orange), and we hoped that a cure had been effected. The boy returned to the country, and during the next few years I heard of him occasionally, and always with the statement that he was quite well. Eleven years later, however, he was brought to town again, with the history that for several years past his abdomen had been steadily increasing in size, and that its bulk had now become such as to greatly incommode him. His abdomen now resembled the condition of extreme distension from ascites; it bulged equally in all directions, and fluctuated freely. The distension occurred as well in the upper as in the lower part, and the lower ribs were much lifted. It differed from ascites chiefly in that there was in all portions of the body absolute dulness in front of the abdomen, and a more or less clear percussion note in the back over both loins. He could only just manage to walk about. There was clearly only one measure which could give him relief.

On the day of operation, before proceeding to open the abdo-

men, I tried the use of a large trocar. This let off only a small quantity of fluid, and although I repeatedly cleared the canula with a probe, it was always immediately blocked again. I accordingly made an incision about two inches in length, just below the umbilicus, through the thin abdominal wall. There followed a somewhat extraordinary scene. It was evident that the tension had been considerable, for the fluid was ejected with great force; and the incision was every minute blocked by a loose hydatid. As soon as the finger was used to displace the plug, a jet was thrown up forcibly into the operator's face. We were obliged for some minutes to stand aside from the patient, and cautiously reaching the hand over to displace the cysts with the finger and hold the wound open. The number of cysts which presented was enormous; and they were allowed to escape into a large bath, which was placed under the table. After pouring away the fluid, there remained enough of the cysts to more than fill a large chamber pail. The cysts were of all ages and in all conditions; but most of them were pellucid and tense, and clearly living. When, after considerable patience, we had succeeded in emptying the abdomen, there remained the question—one, it is needless to say, of extreme importance—as to what should be done with the parent cyst. The abdomen was now deeply depressed, the intestines being held back in very small compass close to the spine, and the recently distended parietes lay in loose folds. We could look into the abdominal cavity quite easily, and everywhere it presented a greyish white granular surface. I tried to identify a cyst wall at the under surface of the incision, but quite failed to distinguish anything from the peritoneum, and it became evident when I attempted to peel away the lining membrane of the cavity that I was detaching the peritoneum itself. On introducing my hand and forearm into the cavity, I found that I could pass it upwards under the thoracic parietes until my fingers were only about an inch below the nipple. Laterally the cavity was bounded by a line drawn a little behind the middle of each side, but it dipped deeply down into the pelvis. The liver could be readily felt, but it was covered by the grey granular membrane already mentioned, and nowhere

were any of the viscera to be seen. It was extremely difficult to say whether we were in the peritoneal cavity or in a parasitic cyst. If the latter, it had become extremely thin, and had accommodated itself in the most extraordinary manner to the boundaries of the abdominal and pelvic cavities. If, on the other hand, the cavity was really that of the peritoneum itself, then it was obvious that the intestines had been covered by false membrane, and that a sort of factitious cyst had been developed. It was clear, however, that nothing could safely be done in the hope of detaching such a very extensive and thin-walled cyst, and it was probable that the attempt would not a little add to the patient's risk. We therefore decided to wash out the abdomen and do no more. I may add that by very profuse washing, pouring water very freely from a jug into the cavity, we had taken every precaution against leaving hydatid cysts still in; this had been a matter of considerable trouble on account of the large pouches which the cavity afforded. We had of course turned the patient on his sides and almost on his face. A weak carbolic acid solution had been used for the last washings. Finally, three large drainage tubes passing in different directions into the cavity were secured in place, and this having been done the wound was closed and dressed with iodoform wool. Throughout the operation I had been ably assisted by Dr. Daly, of the Amherst Road, and his partner Dr. Gibbings, who were in charge of the case. It was to the most assiduous care of the former in the after treatment that our patient chiefly owed his ultimate recovery. I will not offer any detailed statement of the progress during the next month. It may be briefly stated that we were obliged to open the whole of the wound on the third day after the operation, feeling sure that the drainage was imperfect. The discharge at this time was large in quantity and of a most disgusting fetor; and we had to wash the abdomen out two or three times a day by pouring in by the pitcher-full a weakly carbolized water. Fortunately the intestines never became in the slightest degree tympanitic. Through the large gaping wound we could for the next fortnight easily look into the abdominal cavity, or what appeared to be such. It was a strange and to me quite unique sight to

see a man lying from day to day with a gaping wound in the middle of his abdomen into which I could easily pass my hand in all directions. In order to ascertain whether any process of adhesion, or of sloughing of cyst, or of contraction of cyst, I did during the next fortnight several times introduce my whole hand. At first we were almost in despair as to whether it was possible for the cavity to close, for it did not seem to contract at all, and nothing appeared indicative of exfoliation of the cyst wall. At length, at the end of about three weeks, we could see that the cavity was very decidedly diminishing, and the quantity of discharge had become very much less. During the whole of this time the patient had been in a condition of great danger from febrile disturbance. He had high temperatures attended with delirium, and had emaciated to an extreme degree. At about the end of the third week his recovery was assured and his progressive improvement was steady. Ultimately the wound closed soundly, and nothing remained beneath it excepting a thickened lump about the size of a fist. The patient returned home into the country about three months after the operation. It is now more than two years since his recovery. I have seen him recently, and may say that he has thoroughly regained his health and experiences no inconvenience from his former disease.

I submit this case to criticism, as regards the measures adopted; and I shall also be glad to gain any further information that can be afforded as to the probable condition of the cyst wall. Is it probable that the hydatids were loose in the abdominal cavity, or that they were still contained in a thin mother cyst? If the latter hypothesis is adopted, what are we to suppose became of the cyst during the process of healing? Apparently the healing was by the formation of adhesions between the opposed walls of the cavity, the process of adhesion beginning at the peripheral parts of the cyst. At no time was there any evidence whatever of exfoliation of parasitic cyst wall. It is difficult to believe that the interior of a parasitic cyst would have granulated and formed adhesions. There is no doubt that the majority of the cysts at

the time of the operation were living, and the fluid in which they floated, although somewhat opaque and whey-like, showed no signs of decomposition. I feel quite satisfied that no other line of treatment was open to me than that which was adopted, and feel sure that it would have been quite useless and probably harmful to have attempted to remove the hypothetic cyst. It is an obvious remark that earlier treatment would probably have been attended by much less danger. It was the enormous size of the cyst which made the case so formidable.

The case further illustrates the fact that in some instances what appear to be cures of hydatid tumours by simple paracentesis are not always such. In this instance the tumour did not begin to refill after the first tapping for several years; and we thought the patient cured. Its increase was afterwards very slow and insidious. I have published many years ago several cases in which I believed that cures had resulted from simply drawing off the fluid from hydatid cysts. With the light thrown upon the disease by this case, however, I cannot but admit that it is very possible that in some of these the disease may have relapsed.

DISEASES OF THE ARTERIES.

No. I.—*On a peculiar form of Thrombotic Arteritis of the aged which is sometimes productive of Gangrene.* (*With Plate.*)

We have long been familiar with a form of phlebitis to which the term thrombotic is applicable, since its chief phenomenon is the coagulation of blood in the vein and the subsequent obliteration of the latter. It occurs chiefly in veins which have been already dilated and are more or less varicose. The process of plugging may extend through a very considerable length of the vein, and it is usually attended by conditions more or less marked which imply implication of the coats of the vein and of the cellular tissue surrounding it. There is considerable swelling, great tenderness, and often very decided congestion of the overlying skin. This form of phlebitis entails not the slightest risk of pyæmia; all that follows is permanent obliteration of the vein involved, and this possibly is by no means universal. Now and then, in very rare cases, portions of the thrombus may be detached, and, passing upwards in the current of the circulation, reach the heart. It is generally believed that this condition is usually associated with gouty tendencies, and although there are exceptions, this is probably true of the majority of cases. We study the phenomena of this form of phlebitis chiefly in the superficial veins, and probably it is more common in them than in the deeper ones, since a pre-existing varicose state is important as disposing to it. No doubt, however, the deeper veins sometimes suffer, occasionally even the very largest.

My object in the present paper is to ask attention to certain facts which seem to suggest that the arteries are liable to a

parallel form of disease—one, namely, in which there is a spreading plastic inflammation which glues the artery to its sheath, and at the same time produces thrombotic plugging of the vessel, to be followed by permanent obliteration. This form of arteritis occurs, I believe, most often in elderly persons, or, at any rate, in those past middle life; probably it never happens to arteries which are perfectly sound. I do not, however, feel in the least sure that the advanced calcareous degeneration of old age is a frequent predisponent. In the case which is the principal subject of the present paper, although the patient was advanced in years and the arteries not sound, yet they were not calcareous. There is no proof, nor, I think, much probability, that anything of the nature of embolic plugging precedes this condition of thrombotic arteritis. It is very difficult indeed to say what its initial stage is, and I may remark that it is equally so in the case of thrombotic phlebitis. Whether the first change is coagulation of the blood or an inflammatory thickening of the vessel-walls cannot easily be proved; my own belief, however, strongly inclines to the latter opinion. As in thrombotic phlebitis, so in this affection there is a certain amount of evidence in favour of the belief that a gouty state of constitution may predispose to its occurrence. Opportunities for proof of thrombotic arteritis are, as we might expect, far less common than their parallel in the case of the veins. Many of the latter run superficially, and are easily examined, whereas most of the arteries are more or less deeply buried and cannot readily be felt; nor is it very often that we get the opportunity of dissecting a limb after the patient's death. The disease which has been named arteritis obliterans is, I believe, usually one of somewhat slow progress, and is not supposed to be accompanied by thrombosis, whereas the condition to which I now wish to draw attention is one of rapid development, and has for its principal feature thrombotic occlusion of the vessel implicated.

The principal facts bearing upon the statements just made will be taken from a case recently under my care and in which I have had an opportunity for dissection. Before proceeding, however, to narrate it, it may be convenient to

mention one which came under my notice many years ago, and which first drew my attention to the subject. In it I had no opportunity for dissection of the vessels, but an unusally good one for observation of the phenomena during life. The subject of this case was an old man named Rumbold, the father of a well-remembered beadle at the London Hospital College thirty years ago. He was a tall, fine-looking man, rather thin, and quite bald. He had been a gentleman's servant, having lived in the family of the Earl of Dundonald, and he had, I believe, suffered from gout. At the time that I saw him he was living with his son near to the London Hospital College. He was upwards of eighty, and almost in his dotage. I was asked to see him because, as I was told, he had red "streaks on his head" which were painful and prevented his wearing his hat. As I have said, he was bald, and his scalp was thin. The "red streaks" proved, on examination, to be his temporal arteries, which on both sides were found to be inflamed and swollen. The streaks extended from the temporal region almost to the middle of the scalp, and several branches of each artery could be distinctly traced. The conditions were nearly symmetrical. During the first week that he was under my observation pulsation could be feebly detected in the affected vessels, but it finally ceased; the redness then subsided, and the vessels were left impervious cords. At no time was any gangrene of the skin of the scalp threatened. The old gentleman lived, I believe, several years after this without any other manifestation of arterial disease. It was thought that the pressure of his hat on his temples had been the exciting cause of the arteritis. At any rate it was on account of the tenderness produced by the hat that he first sought advice. We appear to have in this case an unquestionable example of an arteritis which spread along the affected vessels, causing swelling of their external coats and adjacent cellular tissue with congestion of the overlying skin, and which resulted very quickly in occlusion of the vessels. It is not proved that there was any thrombosis; it is, indeed, certain that in the first stage there was not. I am not able to state whether the final stage of plugging occurred suddenly or not. That there was no

gangrene of the skin supplied is not perhaps very surprising when we remember the other smaller sources of supply which the scalp possesses, and reflect that it probably needs a very small quantity of blood to keep it alive. Had similar changes occurred in the main arteries of one of the limbs the result might have been very different.

It may perhaps be reasonably suspected that a certain number of the more acute and rapidly-spreading forms of what is called senile gangrene are dependent on the kind of thrombosis which I am about to describe. The more chronic cases in which the gangrene begins at the tip of one toe and spreads very slowly in the course of months are probably usually in connection with advancing calcification of the vessels without either embolism or thrombosis. Many dissections in such cases have at any rate proved the negative as regards any extensive plugging of the vessels. It is quite possible, however, that in some of these cases thrombosis may occur as a complication, and may explain sudden increase of the gangrene.

The particulars of the case which has led me to make the preceding remarks are as follows:—In December of 1889 I saw, in consultation with Dr. Patten, of Ealing, an old lady of 74, who was suffering from gangrene of her left leg. She had been seen on the previous day by Sir James Paget, who had advised immediate amputation, and been good enough to suggest that I should be consulted. Our patient was one of a family remarkable for good health and longevity, but with some tendency to gout. She had herself been of very vigorous habits up to the date of her present illness. Her present attack had begun by very severe pain over the region of the liver, and she had been for a week or two confined to bed with symptoms which might be supposed to indicate the presence of gall-stones. It was just as she was well recovered from this illness that the gangrene of the foot commenced. The latter might be described as almost of an acute kind, for it had been present only ten days when I saw her, and already all the toes were dusky and livid, and a large patch of the skin on the front of the leg was in the same condition. The whole leg nearly up to the knee was somewhat swollen. The tempera-

ture of the foot was considerably lower than normal, but the parts were not absolutely cold. The threatening of sphacelus on the skin of the leg itself of course separated the case very definitely from the more ordinary forms of senile gangrene. There was no tendency to mummify in any part, the process being attended rather by slight general œdema. The whole limb had ached much, and had caused the patient to be very restless. Possessing great determination of character, she had even up to the time of my visit refused to be confined to bed, insisting that her leg was more comfortable when she was up. Her pulse was quickened, temperature 100, and there had been some tendency to wandering at night. Such being her condition, I could but express a very unfavourable opinion as regards her prospects. It was clear, however, that she must sink very soon unless the limb were removed, and it was therefore agreed that we should give her such chance as an immediate amputation afforded. To this, after all had been explained, both she and her friends willingly assented, and the amputation was done the next day. I should have said that pulsation could be detected in her femoral artery, but not in her popliteal.

The amputation was done in the lower third of the thigh, Esmarch's elastic band being used as tourniquet. The femoral artery was found to be somewhat rigid, but not calcareous, and, having been first twisted and then carefully tied with catgut, scarcely any blood was lost. The stump was returned to bed she was in a very satisfactory condition. I did not see her after the operation, but continued to hear from Dr. Patten very favourable reports of her progress. Nothing had occurred to suggest the desirability of dressing the stump, and the temperatures were normal. On the seventh day after the operation, when it had been arranged that we should map, and the temperatures were normal. On the seventh that our patient had been suddenly taken much worse and was not likely to live. A subsequent telegram informed me she was dead, for a first dressing, I was disappointed to hear place. And our consultation accordingly did not take day by Dr. Patten, seemed to suggest the probability that

examination of the body, which was made next

return of her gall-bladder irritation had been the cause of her fatal collapse. The latter had been preceded by delirium, pain and sickness, and a large gall-stone was found plugging the cystic duct. The gall-bladder was immensely distended. The condition of the stump was satisfactory. There had been no hæmorrhage and no gangrene of the flaps.

Examination of the limb.—On dissecting the limb after removal we found both the anterior and posterior tibial arteries firmly plugged with clot of some standing. The clot extended upwards into the popliteal, where it adhered but loosely to the arterial coats, and ended in a sort of cone. The vessel which is represented in section in the drawing is the anterior tibial, and by its side two large plugged veins. At this part, as will be seen, the clot is very firm, completely fills the vessel, and adheres to its walls. The occlusion here was absolute, and this condition involved almost the whole length of the anterior tibial with its branches. The veins also were completely plugged by firm adherent coagula of some standing. In the upper part of the posterior tibial the whole of the popliteal and the lower part of the femoral the clot did not adhere closely to the walls of the vessel, and in some parts did not occupy the whole of its calibre. The arteries involved were everywhere more or less adherent to their sheaths and to the adjacent veins. It was much more difficult than usual to dissect them cleanly out. The conditions which I have described are well illustrated in the accompanying drawing, which shows the artery laid open from the point where it was cut in the amputation to the upper third of the posterior tibial. The vessels seen in section are, as already stated, the anterior tibial and its veins. The long trunk is the posterior tibial. Owing to changes which occurred after the vessel was cut open and put in spirit, the artist has not represented the clot as nearly so large as it appeared at first. It had become loosened in many parts from the lining of the vessel to which in the first instance it adhered.

The coats of the affected vessels were everywhere thickened, and showed dense yellow patches, but there was no actual calcification.

Nothing resembling an embolus was observed. The only

shrivelled aneurism could be felt, and he had, without having the slighest suspicion of it, a considerable aneurism in the popliteal space of the other limb. I mention this latter fact in order to corroborate the diagnosis.

This form of anæsthesia is common after ligature of arteries.

There is a form of anæsthesia of this kind which is transitory and recurrent, a close ally of Raynaud's disease. There is also a form of cold sweating of the toes and distal part of foot which is transitory and recurrent, and is probably in association with arterial causation. My point is that whenever subjective sensations, numbness, coldness, &c., affect all the digits equally, without regard to nerve supply, the condition is usually due to want of blood.

No. III.—*On some cases of Obscure Pain in the Feet, probably in connection with Peripheral Arteritis.*

I have had under care at different times some very peculiar and troublesome cases of unexplained pain in the feet, which incapacitated the patient, for longer or shorter periods, for all exercise. Two of these are so similar in their principal features that they seem worth narrating side by side. The first of them was a man upwards of seventy, apparently in good health, and although somewhat gouty, not so in any remarkable degree. He had consulted several medical men before I saw him, and had failed to get relief from pain in the insteps, which quite prevented his walking. It was brought on by all exercise, however slight. One foot was much worse than the other, but both suffered. I could find neither swelling nor tenderness. The liability had lasted more than a year. I thought it very probable that he had advanced arterial disease, and advised the utmost care in reference to the prevention of senile gangrene. I will leave his case for the present (not having the notes before me), and will narrate that of a gentleman whom I have just seen.

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PLATE LIII.

THROMBOTIC ARTERITIS.

This Plate shows, first, the popliteal artery from place of section in the amputation, secondly the posterior tibial laid open longitudinally, and lastly a transverse section of the lower part of the anterior tibial with two large veins. In the last both veins and artery are seen to be firmly plugged, and the latter contracted. In the vessels laid open lengthwise it will be seen that the thrombus does not fill the entire calibre and in most parts appears to adhere but loosely. As explained in the text the clot had become detached somewhat by handling, &c., before the specimen was put into the artist's hands.

West, Newman, chromo.

No. IV.—*Long persistent liability to Pain in the Feet during Exercise, in a robust, middle-aged man.—History of Spontaneous Gangrene of One Toe.*

Mr. H. F——, a gentleman aged 52, single, a decided hypochondriac, announced himself to me as of "gouty diathesis and weak portal system." His chief complaint was, however, of "lameness in his feet," and from this he had suffered for fifteen years. The pain began in the soles of his feet, and if he walked fast it passed upwards from them into the calves of his legs. It almost wholly incapacitated him from walking. He was comfortable if at rest, and could ride on a tricycle. He could manage to shoot a little, but could only go out alone, as the pain in his feet often obliged him to sit down and rest every half-hour. Although, as he said, he had suffered from this pain for fifteen years, it had not been continuous through the whole of this time. It had been much worse during the last six months than ever before. My examination of his feet revealed nothing peculiar, excepting that there were a number of small blue varices just above the roots of his toes and that the skin looked mottled and showed pigment spots. He complained that his feet were constantly cold, but at the time that I saw him there was nothing special to be noted in this respect (it was a very warm day). Mr. F—— was a man of large frame, florid, and looking perfectly well. He gave me his history in a very disconnected manner, and it was difficult to arrange it clearly. That there was something seriously amiss as regards the circulation in his feet was made quite certain by the fact that he had lost the end of one great toe by gangrene. His statement was that in March, 1878 (when he was only 41 years of age), a spot formed on the tip of the great toe, which slowly advanced to gangrene. He was in bed six months with it, and finally spontaneous separation took place. After the gangrenous part had separated the sore would not heal, and he spent a year under the treatment of Dr. Penhall, at St. Leonard's. During the course of the treatment he saw Sir James Paget, Mr. Le Gros Clark, and Sir Prescott Hewett. It was not until

three years from the beginning that the toe became sound again. On one occasion an incision was made in order to remove, as he believed, a sloughing tendon. The cicatrix, when I examined the toe (ten years after the attack), was quite sound, but there was a little spot which had recently formed above it, about which he was very anxious. He appeared to have lost the last phalanx and the whole of the pulp of the toe; but a small portion of the nail still remained. The pulse at the wrist was of good volume but rather hard. There was no evidence of calcareous deposit in the arterial coats. His ankles were a little puffy, and I could not easily examine his tibial arteries. I did not succeed in detecting pulsation in any one of them. The result of my investigations made it probable that he had repeatedly suffered from venous obstruction in the lower limbs, but never from anything very definite. He had once had gonorrhœa, and probably syphilis. The chief evidence as regards the latter was liability to periostitis of one tibia. He had never had a definite attack of gout, but had several times passed gravel. His mother had had true gout. He had on one occasion been sent by Sir A. Garrod to Aix-la-Chapelle. He was there under the care of Dr. Brandis, who, however, declined to rub in mercury.

My impression is that in this case the pain and aching in the feet is in connection with vascular obstruction, venous or arterial, possibly both, and not with any joint disease. There is no evidence of the latter in any articulation, nor is the pain produced by sudden movements. He can always walk a little way, but the more he walks, the more severe becomes the aching in his feet and the more it tends to extend to his calves. Spontaneous gangrene of a toe in an apparently healthy man of not more than about 40, is a very rare event. It may be suggested that it was in this instance caused by a condition not wholly dissimilar from Raynaud's disease, and in support of this is the fact that his feet were always cold. It must be remembered, however, that only one toe was attacked, that no general asphyxia of the extremities had ever been observed, and that his hands have never suffered at all. I am inclined to suspect that some definite condition of arteritis of the small vessels leading to

occlusion was its most probable cause. This arteritis was probably of syphilitic origin. I published many years ago a case of threatened gangrene of a finger, preceded by great pain, in a gentleman of middle age who had had syphilis. In this instance I ventured to diagnose syphilitic occlusion of arteries. A parallel case has since been published by Dr. Hermann Klotz of New York, who adopts the diagnosis, and gives valuable facts in confirmation of it.*

No. V.—*Cases showing the usefulness of the Iodide of Potassium in internal Aneurism.*

At the March meeting of the Northumberland and Durham Medical Society, two patients were produced by Dr. Limont whose cases are well worth the consideration of those who advocate extreme surgical measures in the treatment of internal aneurism. In one the aneurism was believed to involve the lower part of the abdominal aorta. The man had been before the Society on a former occasion, the interval being *two years and three months*. During this period he had been taking the iodide of potassium fairly regularly in twenty-grain doses, and had been getting about with but little discomfort. In the first instance he had narrowly escaped a ligature of the aorta.

Dr. Limont's second case was one of a large aortic aneurism in a man of 61. It projected visibly in the spaces of the second, third, and fourth costal cartilages. Three years ago he had been in the Hospital for three months under treatment by the iodide and rest. Such benefit was then obtained that he returned to his home and resumed his work, and remained for *two years and a half* without inconvenience. At the end of this time the relapse occurred which had again brought him under care.

[I abstract these cases from the concise and brief but very valuable reports published quarterly by the above-named Society.]

* See "American Journal of the Medical Sciences," August, 1889.

A REMARKABLE CASE.

POSSIBLY ALLIED TO SCLERODERMA OR DIFFUSE MORPHŒA.

Patient a healthy young man of feeble circulation—A protracted febrile illness diagnosed as typhoid—Diarrhœa and blood in stools—Formation of large indurations in the skin diagnosed as erythema nodosum—Ulcerations on the hands and feet—Recovery, with persistent induration in large patches of skin—Dusky and much scarred hands—A temporary proptosis of one eye—A second much milder febrile attack one year after the first—Evidences of family tendency, two sisters also presenting peculiarities as regards their circulation. (With Plate and Temperature Chart.)

THE case which I now publish in detail is the one to which I briefly alluded in the last number of the ARCHIVES (see p. 271). I then mentioned another which in some of its features, but by no means in all, is a parallel to the present one. I know of no others which can be placed with them. The case now to be described presents so many features of peculiarity, that I find it exceedingly difficult to write a narrative which shall be intelligible to the reader. The patient had a very long febrile illness, supposed to be typhoid fever; during this illness he had great bumps or indurations form in the skin of various parts, which, as they subsided, left hardened patches. The illness was attended by ulcerations on the extremities, which left his hands and feet dusky and covered with scars. After apparent recovery from the four months' fever referred to, he became the subject of some inflammatory effusion into the orbit, and his right eye was pushed out. At this juncture was passing uric acid in very large quantities. A year later had another febrile illness, but not of so severe a character.

To this complicated statement of conditions, without any obvious connection with each other, I have to add that two of his sisters have shown similar, but far slighter, proclivities as regards ulcerations, etc., on the hands. It will be seen that this family tendency might suggest an inheritance such as that which is responsible for Kaposi's disease, whilst the state of the circulation of the hands is strongly indicative of Raynaud's phenomena. What are we to make, however, of the prolonged febrile disturbance and of the indurated patches which have developed under the skin of various parts? What, also, of the temporary proptosis and of the lithiasis? I shall not make any attempt at a diagnosis if by that term we are to imply the giving of any name to the condition. It would be sufficient for the present to suggest that in all probability the patient does inherit definite peculiarities as regards his circulation and nutrition of tissues, giving proclivity at once to the peculiar phenomena both of Raynaud's and Kaposi's maladies; that his febrile attacks were possibly of the nature of a lymphatic inflammation of the skin, very peculiar, but not wholly without alliance with erysipelas, and that his proptosis was of the same nature. In using the term erysipelas here I mean only an infective and spreading inflammation of lymphatic spaces attended with fever; of course if the form of inflammation were erysipelatous in this instance, it was widely different from the ordinary types of erysipelas. It will be well to remember in this connection that some cases of diffuse scleroderma are initiated by a febrile attack attended by slight œdema of the skin. In the present case some of the indurated areas which still remain hard are not unlike the conditions of scleroderma. There is also reason to believe that some of the lymphatic trunks are involved in the disease, although there has been from first to last no enlargement of glands.

Having given the above general sketch of the case, I will now proceed to details by recording the description of the patient's condition in June, 1889. At this date the patient was first sent to me by Dr. Crabb, of Holloway, to whom I ar indebted for permission to publish a case in which he ha taken the utmost interest.

Description of condition presented in June, 1889.

Mr. G—— is of rather dark complexion, fairly healthy looking, but of thin features. The skin of the cheeks can be pretty easily pinched up. His ears are very thin, and their edges look as if they had been gnawed; they are dusky and show stigmata. The lobule of the right ear is swollen and dusky. Near to the outer angle of the right eyebrow are three little patches which are erythematous and slightly thickened. The middle of one of these is pale and almost tallowy. The chief conditions of disease are, however, shown in his hands and forearms. The extremities of all the digits are glossy, and covered with thin scars and ill-defined patches of congestion. The pulps at the ends of the fingers are much thinner than natural. The nails are thin, their edges broken away, and their substance somewhat fibrous and opaque. The palmar aspects of the digits are seamed all over with scars. The skin of the palm, more especially near to the wrist, is healthy. The skin of the right forearm looks tallowy and pale, and in many parts thick ill-defined plates of induration involving the deep layers of the skin, but freely movable on other parts, can be felt. These, he says, are the remains of the "erythema nodosum." Exactly similar but slighter conditions can be felt in the skin of the other arm, but they are chiefly marked on the lower part of the forearm near to the wrist. The two hands are almost exactly alike. In both, the skin and the back of the digits near to the nail is in a state of thinnish scar. The skin of his body generally is somewhat mottled and tallowy, but in a very ill-defined degree, and on some parts of the abdomen there are patches of induration. There is a lump in the epididymis and lower part of vas defenens which is very like a mass of tubercle. He has known of this last condition for only a few months.

He has just recovered from an illness which he describes as his "fever illness." There is no anæsthesia of any part. His feet are in much the same condition as his hands, the skin of the leg in the lower third has become hide-bound and tight, and a considerable scar has formed, although, as he says, there never was any ulceration. The skin of the foot below

PLATE LII.

[illegible] HAND.

[illegible] of Mr. G——'s hands on [illegible] and as they still are at [illegible] they are dusky and cover[illegible] abundant on the fingers and [illegible] that the conditions shown on [illegible] before the severe febrile illness [illegible] the first and principal event in the case [illegible]. They are not dissimilar from those present in [illegible] on the hands of his two sisters.

West, Newman, chromo.

November 21st it is noted "that his bowels are again very costive, and the motion again contained blood." On November 30th "there was again blood in the motion, and he had a slight rigor." On December 3rd Dr. L—— B—— saw him, and confirmed the diagnosis of typhoid; he was now sleeping well, and not taking antipyrin. On December 9th there were erythematous nodules on the face, almost closing up one eye; a little cough. On December 11th the bowels were a little looser, and there was again some blood. On January 5th antipyrin, which had been left off for a week or two, was again given. During the next two weeks the state of his bowels varied, there being sometimes diarrhœa and sometimes constipation. On February 5th Dr. L—— B—— again saw him, and in default of any other plausible diagnosis still maintained that of typhoid fever. He had hitherto been kept chiefly to milk diet, but was now allowed some Valentin's meat juice. After this there was constipation rather than otherwise. On March 12th a rigor occurred. On March 14th he became liable to profuse perspiration, which occurred generally twice a day after the antipyrin, and this liability continued very definitely for a fortnight.

It was during the relapse in February that "erythematous bumps" were first noticed in various parts of his body. These came out with a feeling of coldness but without definite rigor, and continued for about a fortnight. On April 29th it is noted, "Erythematous bumps still visible on arms, but evidently fading."

The temperature chart of Mr. G——'s febrile illness, which has been given to me by Dr. Crabbe, shows, that from the middle of October to the end of March it never fell to normal. During nearly the whole of this time it was generally considerably above 100°, on three or four occasions above 104°; and very frequently at 103°. The evening temperatures were always the highest, and it is to be noted that the variations, although considerable, were not usually very sudden. After the five and a half months' of maintenance of the elevations which have been mentioned, the temperatures fell on March 28th to normal, and during the next ten days continued either normal or below the line. On March 7th,

0 11 12 13 14 15 16 17 18 19
9 20 21 22 23 24 25 26 27 28
31 Apr. 1 2 3 4 5 6 7 8

however, the evening temperature again began to rise, and increasing almost steadily from day to day, reached nearly 104° on the evening of the 21st. After that date it gradually fell, touching normal on the morning of May 1st, remaining then for a week low in the morning and high in the evening, and finally sinking on the 10th to a condition of normal every evening and 1° below it every morning. From June 2nd to the present time (September) it may be considered to have been normal, and during the period of the proptosis about to be described no exacerbations have been observed.

Account of an attack of one-sided proptosis.

In the middle of September, 1889, Dr. Crabb again sent Mr. G—— to me on account of a new symptom. He was at this time feeling well, and had no increase of temperature; but his right eye was becoming prominent, and the conjunctiva was congested. I saw him at different times repeatedly during the next month, and had photographs taken which well exhibit the prominence of the eyeball. It was at one time very considerable, and was attended by some swelling of the conjunctiva, with vascularity and slight serous chemosis. There was never any pain, nor could any tumour be detected behind the eyeball. The globe was simply pushed straight forwards. The treatment adopted was by the use of iodide of potassium and small doses of mercury, and under this in the course of about six weeks the congestion of the conjunctiva had disappeared, and the eyeball had pretty much returned to its proper level. The ophthalmoscope had never detected more than fulness of the retinal veins.

My next note refers to his condition at the time that the proptosis was disappearing.

Detailed description of his condition in October, 1889.

I had an opportunity for again examining Mr. G—— on October 29th, and on this occasion in the presence of my friend Dr. Pringle. We had him stripped. The proptosis had at this date almost disappeared, and the patient expressed himself as feeling well. The treatment during the last month had been perchloride of mercury and iodide of potassium.

The state of the hands and feet was much as it had formerly been. They were mottled all over with scars and stigmata, but there was no existing inflammation or eruption. The skin in various parts of the body and limbs presented indurated patches of infiltration. Some of these were nearly as large as the palm of the hand, and felt as if from a quarter to half an inch in thickness. They were for the most part not in the least raised, and were indeed not to be detected by the eye, otherwise than that they gave to the skin generally a somewhat lumpy and indurated appearance. They were best detected by passing the open hand lightly over the surface. It was the skin itself which was chiefly involved, but the subcutaneous tissue was also implicated to some extent. On the front of the right leg, over a considerable extent the skin was distinctly hide-bound and tight, and a little glossy; but for the most part this was not the condition presented by the indurated patches; the latter being movable on the parts beneath. The masses of induration were for the most part symmetrically arranged: thus, for instance, there were two precisely similar ones on the sides of the abdomen level with the umbilicus. On the face the symmetry was not exact, for over the right malar bone the skin was tight, hide-bound, exactly like that of diffuse scleroderma, and without thickening; while on the left there was a patch of movable induration the size of a child's palm. Patches of lumpy thickening were very definite on both wrists. There was no enlargements of lymphatic glands anywhere, but Dr. Pringle agreed with me in the belief that we could trace cordy lymphatic trunks irregularly enlarged and here and there lumpy on several parts, more especially on the arms. The ears were speckled over with little scars and stigmata, just like those on the hands, but there was no extensive erosion. The patient at this time, although considering himself quite well, had a pale and somewhat cadaverous aspect. He was thin, but not losing flesh. He had noticed lately that his urine had deposited a red sediment, and brought me, instead of a specimen of it, a little packet of uric acid sand, from the quantity of which it was to be inferred that he was passing the *acid* very freely indeed. He told me that two of his sisters

were suffering more or less from their hands, although the weather had not been as yet at all cold.

Facts as to a relapse of febrile illness in January, 1890.

In January of the present year Mr. G—— experienced some return of febrile symptoms, and complained of weakness in his legs, and at the request of Dr. Crabbe I procured his admission into the London Hospital, where he remained from January 10th to February 14th under the care of Mr. Treves. The following is a summary of my son's notes as to his symptoms during that time. He complained that, when walking, his legs had occasionally felt as if they were paralyzed and would give way under him. This sensation he had never experienced in his arms. During the five weeks he was in the hospital his temperature was always above 100° in the evening and occasionally as high as 102°; but usually, though not always, it came down to normal in the morning. A small abscess formed in the right index finger during his stay in the hospital, but it was too small to have had anything to do with the persistently elevated temperatures. The prominence of the right eye was at this time scarcely observable. The description of the state of his skin, and the subcutaneous nodules and indurations as noted by those who investigated the case in the hospital, does not differ materially from that which I have already given, and need not therefore be repeated. A curious cord-like induration on the face, extending from the left malar bone to the lower border of the inferior maxilla, especially attracted attention, and it was noted that there was another beneath the scrotum on the left side. His urine was at this time repeatedly examined, and was never found to contain hæmoglobin, nor indeed anything abnormal.

Facts as to Mr. G——'s sisters. His sister's state in July, 1889.

Mr. G—— brought me one of his sisters (July 28th). Her hands presented precisely similar conditions to his own, but in a very minor degree. Her fingers showed many little

scars, but were not now inflamed. The lobule of the right ear was thickened and dusky.

The liability to inflamed hands began with her at the age of 14, and is increasing in severity each winter. It has never as yet quite disabled her. She has the appearance of good health, is florid, and well grown.

Mr. G——'s two sisters came for inspection for a second time on November 3rd, and as the opportunity offered they were seen also by Dr. Radcliffe Crocker, Dr. Stephen Mackenzie, and Mr. Malcolm Morris.

On the hands of both, although the weather had been very warm for the time of year, there were many large erythematous patches. These were most numerous on the fingers, and in one of the sisters the fingers were almost covered. They much resembled the condition seen in lupus erythematous, being more superficial and more widely spread than is usual in chilblains.

One observer thought that some of the patches were like erythema iris, healing in the centre and spreading at the edge, but this condition was not well marked. Both girls said that their hands were much worse now than they had been in the summer, and spoke of the condition as a variable one, without associating it with any season in a definite manner. No other parts excepting the hands had suffered. Both had been liable to the condition for some years. Although the condition was not exactly like that seen in their brother, yet it was clearly of similar nature. We must, I think, admit the proof that three members of the same family are liable to a very peculiar erythematous inflammation of the hands. Thus we have to do with "a family disease," and in this feature the cases come into the category of Kaposi's malady. The severer illness which the brother has suffered must be investigated with this fact of family proclivity kept well in mind.

Comments.

I will not add anything to the necessarily prolix account of this remarkable case, having already commented sufficiently upon its peculiarities. The reader may perhaps

turn with advantage to the details of two cases given in the first number of my ARCHIVES (see p. 21), in which an aggressive and finally fatal cachexia was attended by failure of the circulation in the hands, and conditions resembling chilblains. In one of these a long febrile illness occurred with very peculiar changes in the integument of various parts. These cases, however, do not present close parallels to the present. The one to which I have already referred Dr. Carrington's patient is nearer, though still far from being identical. Concerning Mr. G——'s present condition I may say that since the last notes he has, I fear, not improved, and that he is at present in a very feeble state.

The condition of transitory and apparently inflammatory proptosis which occurred is so unusual, that I think it worth while to mention here another example of it. We know nothing as to the physical cause of this form of proptosis.

Case of one-sided Proptosis in association with a chronic skin eruption—Cure by iodides—No syphilis.

The following account of a temporary attack of one-sided proptosis was given me by the patient two years after its occurrence. He was a gentleman of 40, of gouty tendencies, and the subject for ten years or more of a most inveterate skin disease (eczematous). Colonel F. G—— had never had syphilis. Ten years ago he began to suffer from eczema, and he has since been under the care of specialists in all parts of Europe. In spite of an almost universal dermatitis he retains fairly good health, but his inguinal glands are considerably enlarged.

Two years ago, whilst under treatment in Paris, his left eye began to protrude, and, to use his own exaggerated expression, "was pushed right out of the head." His Paris doctors proposed an operation, but he was finally cured by Pagenstecher at Wiesbaden by means of large doses of iodide of potassium. The eye, he thinks, receded more than natural, and so also did the left, which had never been protruded. I

may repeat that there is not the slightest reason to suspect syphilis. There has not been any tendency to recurrence of the protrusion. The sight was never in the least affected.

We have here an example of an inflammatory proptosis obviously independent of tumour or of gumma, and one-sided. I have published in the Ophthalmic Society's Reports another very remarkable case, possibly somewhat related in its nature. In this instance an Indian gentleman lost one eye after an operation for a condiion of which proptosis was the chief symptom. He had enlargement of the lachrymal, parotid and submaxillary glands. His second eye becoming affected by similar proptosis, he came over to England, and under treatment by iodides his eye-ball receded (see Ophthalmic Society's Reports, vol. iv. p. 36.).

DISEASES OF THE NERVOUS SYSTEM.

No. X.—*Liability to attacks of numbness in the limbs and side of face of one side.—History of an attack of sudden loss of muscular power in the other side many years ago.*

The subject of my case is a lady of a highly emotional temperament, but by no means of a weak character. She is energetic in all the duties of life, of strong will, and exerts considerable influence in the social circle in which she moves. But with all this she has extreme susceptibility to reflex disturbances of all kinds, and is compelled to exercise great self-control in order to avoid breaking down, or bursting into tears. She is now fifty-two years of age, and has been married for nearly thirty years, and has five or six children. On several occasions she has been confined to her house or her room for a month or two at a time, owing to nervous susceptibility, headache, &c. Eighteen years ago she had what she calls an attack of paralysis, of which she gives me the following account:—"I fell down in crossing the room, and fell so suddenly that I thought I had tripped. I had not the slightest warning, and not the slightest feeling of faintness; nor was there any loss of consciousness. I was only convinced that I had not tripped by finding that the right arm and leg were paralyzed." This attack occurred four months after a confinement, and whilst she was nursing. She was in bed for a week after it, but "the paralysis of the limbs," which she believes was almost complete at the time, had passed away in a few hours. She remained nervous, weak, and quite unable to do anything for several months afterwards.

The special symptom which I wish to describe is a liability to attacks of numbness in the left side. (It was the *right*

limbs which were paralyzed.) For the last two years or more Mrs. Y—— has been liable at times to have the whole of the left side, including both limbs and the half of the face, become quite numb. The numbness, she says, is attended by tingling and a dreadfully peculiar tingling sensation which alarms her. It may sometimes last for several hours, or even for a day or two. Her liability to it has decidedly increased of late. The attacks are brought on by any emotional excitement, and more especially by reading an interesting book. She is obliged to instruct her daughters never to allow her to read more than half an hour; and she is often compelled to desist from all kinds of reading. The exercise of the attention required in writing will sometimes bring on attacks, but not nearly so easily as reading. The attacks are attended by retraction of the eyeball and diminution of the palpebral fissure on the side affected, and her daughters are accustomed to observe that "*the eye is going away*," meaning that it is looking smaller. I have not the least doubt that this is a correct observation, for when Mrs. Y—— consulted me, I at once noticed that the palpebral fissure on that side was narrow, and that the eyeball looked retracted. I could not make any difference as regards the activity of the pupils, nor had any defect of accommodation been observed. Both pupils were rather small, and not very active, but beyond this nothing could be said. Her vision, with suitable glasses for presbyopia, was perfect. I inquired as to whether there was any difference in the two sides as regards coldness or as regards perspiration, and was told that the tendency to perspire was unusually great on the two sides, but that no difference was observed. The limbs and face when numb felt to her cold, but she did not think that they were ever objectively so. To conclude the narrative, I have to add that menstruation had ceased some years ago; that Mrs. Y—— lived in the country, and had plenty of exercise; that she took no stimulants; and that she was, so far as I could judge, with the exception of the nervous symptoms, in good health. Her hearing was good, but she was frequently troubled by buzzing in the ears if she attempted to read.

No. XI.—*An instance of Neuritis of the Ulnar Nerve, affecting a long tract and producing uniform induration. Tenderness of the nerve. Supposed to have been produced by an injury. Syphilis and Leprosy both possible.*

Private McK——, a man aged forty-eight, was brought to me on account of what was very obviously at the first glance at his hand, complete paralysis of the ulnar nerve. It was his left hand. He was a spare man, and the hollows between his metacarpal bones were quite obvious, and most so, of course, that between his index and thumb. There was no defect of nutrition in the little or ring fingers, or their nails, nor were they in the least contracted. The loss of sensation, however, in the little finger and ulnar side of ring, appeared to be absolute. I found his ulnar nerve thick and hard as a piece of wire. It stood out from its bed in the course of the upper arm, and it was as easy as possible to trace it from the inner condyle to the axilla. It was of nearly uniform thickness in all parts, and perhaps about double its normal size. On the external condyle it was very movable, and it could have been lifted over its tip had it not been for the pain caused. In the lower part of the forearm I could again feel it easily, as a hard cord. Private K—— attributed his ailment, and probably correctly, to a blow received on his elbow five or six years ago. An exploding shell struck his sword, and drove it against his side and against his elbow. It struck his funny-bone, and gave him much pain at the time, but he did not consider that he had been seriously hurt. Within a few months of this accident he began to notice that his little finger was painful as if his ring nipped him, but it was not until four years later—that is within about a year of the present—date that the muscular wasting was observed. This developed rather rapidly, and with it the absolute anæsthesia in the ulnar fingers. Ever since the accident he had been liable to severe pain if the elbow was touched, and lately this had increased until it was a source of great inconvenience. He could only sleep with the arm straight out at the side of the thigh, and

if by any chance his elbow got bent it would wake him with aching in the limb, and keep him awake some hours. The nerve trunk at the elbow was very tender, and an accidental knock on it would cause excruciating pains; on one occasion he had almost fainted, and it had remained painful for hours afterwards. It was remarkable that there was no derangements of nutrition in the hand. He said that the fingers always felt numb with a sort of pins and needles in them, and that when cold they became colder than the other ones; but in my room there was no difference, and the skin looked perfectly normal. Before venturing on a confident diagnosis on neuritis consequent on contusion, two other facts in the patient's history must be considered. He had lived for long in India, and in leprosy districts, and he had also suffered from syphilis. His attack of the latter disease was twenty-seven years ago, and he had had no reminders. On that occasion the only constitutional symptom which he could remember was a very bad sore throat. It was diagnosed as syphilitic by three surgeons, and for it he was sent to Aix-la-Chapelle. Respecting his treatment at the latter place he made the incredible statement that he had sulphur baths only, and no inunction. As regards leprosy, it is to be said that he had no other indications of it, and that the enlargement of the nerve was more uniform in its whole length, and attended with much greater induration than is usually the case; nor have I ever, in cases of leprosy, known the nerve to become tender. These points are by no means conclusive.

There could be no doubt that in this case neuritis is present, and it appears to be attended not only by enlargement of the nerve, but by a loss of elasticity, if not actual shortening. It would appear to be owing to a certain degree of shortening of the nerve trunk, that he finds the straight position of the arm the most comfortable. Whenever the elbow is bent the nerve is stretched, and pain is produced.

I advised that an operation should be done, and that a portion of the nerve should be excised, but that before resorting to this ultimate measure, a course of mercury should be tried. There seemed a bare possibility that the disease might be syphilitic, although it is perhaps very improbable

that a syphilitic inflammation should extend uniformly through such a long tract of the nerve.

No. XII.—*Long persisting Mydriasis of one eye only with coldness of the opposite hand. History of headaches in boyhood.*

For the present I will content myself by simply placing the following remarkable case upon record :—

A pawnbroker, aged 46, but looking older, consulted me on account of a very exceptional combination of symptoms. He had mydriasis of his left pupil with coldness of his right hand, and there seemed good reason to suspect that these conditions had been present for twelve or fourteen years. At least twelve years ago he consulted a distinguished specialist in a provincial city on account of the state of his pupil, which was much larger than the other, and had been told that it was due to debility, and that there was no cause for anxiety. About the same time he became aware that he had one cold hand, and his children used to joke him and ask him to touch them first with one hand and then with the other. Both these conditions were, in fact, observed in the first instance, not by himself but by his friends. It did not appear that he was specially out of health at the time they commenced. When I examined him the dilated pupil was as large as No. 10, and quite motionless, the other pupil being of the size of No. 3, and very active. He was slightly myopic, and used glasses both for the distance and in his shop. There seemed reason to think that his power of accommodation varied at different times, as he said he could sometimes see better with one eye and sometimes with the other. There could be no doubt, however, that on the day I saw him there was considerable defect of vision in the eye affected with mydriasis. Excepting the conditions of myopia, there were no changes in the fundus and no opacities in the vitreous. I could not detect any weakness in the external muscles of the eye, and there was no very obvious difference in the width of the palpebral fissure on the two sides. His cold hand (that of the opposite side) was to my touch, as well as to his feeling, very definitely colder

than the other. It was also more dusky. If its capillaries were emptied by pressure they filled very slowly, much more slowly than that of the other side. If he became heated by exercise, the contrast between the two hands was at once much greater. He was not remarkable for intelligence of observation, and did not give me a very clear account of the outset of his symptoms, nor could I get to know whether his foot and leg had been affected. He did not think it had been at all definitely colder than the other. The irritation of his boot had, however, brought out a ring of dry eczema just where its upper edge touched the leg, and as there was nothing corresponding to this on the other side, it seemed probable that there was some difference in the nutritive condition of the two limbs. The nails of the colder hand were somewhat more pitted and rough than the other, but there were no very definite changes in the nutrition of the skin. The hand was simply dusky and objectively cold. I did not detect any difference in the ears of the two sides, nor had he noticed any.

Although, as has been said, Mr. F—— was not remarkably intelligent, yet he appeared to enjoy fair equanimity of spirits, and there was no evidence that his family was specially neurotic. Several relatives had died of phthisis, and he had a brother insane. He remembered that as a boy he used to suffer from dreadful headaches, which were always aggravated by stooping. Thus, for instance, he had to be most careful not to stoop to tie his shoe-strings, for if he did he would have a headache for the rest of the day. He used to have at that time what he called "muzzy days," on which he could neither do his lessons nor remember what he had learnt the day before. He used to suffer dreadfully from cold feet, but never had chilblains.

No. XIII.—*Very troublesome recurring Herpes of the Prepuce.*

A gentleman who was sent to me by Mr. Pugin-Thornton, of Canterbury, afforded a good instance of recurrent herpes after syphilis. He had suffered from a chancre six years

before I saw him, and was then treated with mercury for upwards of six months. So far as he knew he never had any secondary symptoms. Eighteen months ago he had another chancre, and on this occasion took mercury for six weeks only. Again no secondary symptoms occurred. The liability to herpes dated from his first chancre. The eruption had occurred not with regularity, but with intervals averaging perhaps six weeks, ever since. He was liable to it on the penis, on the back of the left thigh, and on the left buttock. Sometimes it would occur on all three parts at once, sometimes on two, and sometimes only on one. When he came to me he had it on the penis and back of the thigh. He had not been accustomed to do anything for it. The attacks would last a week or ten days, and then get well spontaneously. Throughout the whole period of liability he had had no other reminders of syphilis, and had been in good health. I advised him to take a long course of arsenic, warning him beforehand that it might very possibly give him an attack of shingles.

No. XIV. — *Very troublesome, almost persistent, Herpes of the Prepuce. Long continued use of arsenic. Great benefit.*

A married gentleman, aged forty, who was sent to me by Mr. Treves, of Margate, had been for two years very much annoyed by herpes of the prepuce. He had had syphilis some years ago, and had been married now two years. I saw him first in the beginning of January, 1888, and prescribed arsenic. In January, 1889, he was able to report that he had several times been for several months free from his plague. He had in fact had it only four times during the whole year, whereas formerly he used hardly to get rid of one attack before another came. He told me once, before he consulted me, whilst staying at Spa, and being freely purged by the waters there, he had been for a time quite free from herpes; it had returned, however, almost as soon as he got home. In this case the herpes used to follow sexual intercourse and enforce abstinence. After a more or

less prolonged period of abstinence, a single indulgence was sure to bring it out, and the longer the interval the more severe the attack. This liability persisted for some time after beginning the arsenic.

No. XV.—*Very troublesome Preputial Herpes. Long continued use of arsenic with benefit; attacks rendered abortive.*

Mr. William C——, unmarried, from New York, consulted me on account of most troublesome herpes of the penis, from which he had suffered for four years. His attacks were so frequent that he was scarcely ever free from it. It had followed syphilis, from which he had suffered five years ago, and for which he had been treated by mercury. He had no other symptoms of remaining syphilis, his knee-jerks were good. He was anxious to marry, and the herpes was the only hindrance. On May 24th of 1888 I prescribed arsenic for him, and on October 30th he reported that the herpes had sometimes been absent for five or six weeks at a time, but that on several occasions the attacks had very rapidly succeeded each other. In April, 1889, his statement was that the interval had got much longer and the attacks milder, and in June of the same year he considered himself well, and wished to leave off the medicine. Of late, if an attack had threatened it had always proved abortive, not lasting more than a day.

In this case I had been obliged to push the remedy, giving in combination, m iii of Liq. Sodæ Arseniatis, and the same quantity of Fowler's solution. At one time I thought he had symptoms which might be due to the arsenic, for some little rough peeling discs appeared on the backs of the hands, and there were several little persistent patches of decided thickening on the corona of the glans penis. Both of these conditions disappeared on stopping the arsenic, but they did not recur when we resumed it.

ON RHEUMATISM AND GOUT.

No. I.—*On Painless Gout.*

I AM very anxious to remove a widely spread and quite erroneous opinion that pain is essential to gouty inflammation. This creed leads, I am sure, to many mistakes in diagnosis. If gout attacks the ligaments or cartilage of a joint, or the periosteum of bone, or the thecæ of tendons, then it is usually painful, often, as is well known, most acutely so. But if it affects, as it sometimes does, skin and cellular tissue chiefly, then it may easily happen that there is little or no pain. In many cases of even acute gouty inflammation, redness and œdema are the signs, and pain is almost wholly wanting. In such cases the diagnosis of erysipelas might very likely be made, and when, as I have sometimes seen, the œdema spreads up the limb, this suggestion might appear to obtain an item of important support.

Having thus asserted that some forms of unquestionable gout are painless, I will now illustrate the subject by giving the details of a very definite case. I wish it to be considered not as a rarity but simply as an example.

A gentleman, who was under my care on account of eczema, and who had a strongly gouty history, came to me one day with a slipper on his right foot in consequence of swelling of his third toe. He said it was gout, and he attributed it to his having incautiously drunk champagne at a friend's house. The whole toe was swollen, œdematous and of a dusky red tint. There was no abrupt line of demarcation to the redness, and the swelling extended more or less over the roots of adjacent toes. My patient stated

that he had slept well, and that excepting a little pricking and tingling in the skin he had no pain. I prescribed alkalies and a suitable regimen. I made him wrap the toe up, and allayed the redness with a spirit lotion. In a few days all inflammation had disappeared, and he could again wear his boot. A fortnight later, in consequence of some symptoms of failing tone, I prescribed for this patient a mixture containing quinine. He was at this time taking no wine, excepting claret, and that in very small quantities. Apparently as the result of my quinine mixture, œdema of the foot returned. This time it was not in the toe, but on the instep. There was a large, puffy, œdematous patch, and reddening of the skin. Again there was no pain whatever. The patient had walked to my house; he slept perfectly, and felt well. There was some pricking and burning of the part, but this was all.

In further proof that these attacks were really gout—in other words, that they were caused by disorder of assimilation and excretion attended by the presence of lithate of soda in the blood—I may state that I removed from my patient's ear a small tophus. He told me further that he had been under the care of Sir Andrew Clark, exactly a year ago, for an attack of gout, and that on that occasion there had been swelling and redness, but no material pain. A year before that he had had his first attack, and a much more severe one, attended by great œdema and by pain which kept him awake at night. He inherited gout on both sides, both his grandfathers having suffered from it. He had no brothers. Neither of his two sisters were accustomed to take wine, and neither of them had had definite gout. Both were liable to neuralgia.

No. II.—*On Inheritance of Gout as the predisponent of Gonorrhœal Rheumatism.*

I have long held that the predisposing cause of what is called gonorrhœal rheumatism is an inheritance of gout. In case after case I have found this history, and few indeed have been the exceptions. I have, however, never seen a case which

better illustrated not only this fact, but the whole train of eye symptoms which go with this disease, than the subject of the following narrative.

A gentleman, of about 25, suffered from his first gonorrhœa, and under treatment with sandal-wood oil was getting better when he was laid up in bed by an acute and very painful attack of arthritis in one ankle. Next the joint of one great toe was attacked, and symptoms exactly like those of gout supervened. Other joints were threatened. Whilst this was going on he had conjunctivitis of both eyes. It was not gonorrhœal ophthalmia, and was not purulent, and it soon passed off. Just as it was well, however, the right eye was attacked in a different way. It became the seat of intense pain, which affected the whole globe, and was attended by intolerance of light and much dimness of vision. At one time the aqueous was believed to be opaque. It was difficult to be sure as to a ciliary zone of congestion on account of the great amount of conjunctival redness which concealed the deeper parts. The paroxysms of pain were relieved only by injections of morphia.

It was after all the events described above had passed that I saw the patient. The consultation had been requested on account of alarm as to the prospect of the eye.

I found the eye, as described, much congested, and so irritable that detailed examination was not practicable. I contented myself by ascertaining that he could still see small capitals, and that there was no increase of tension. The pupil under atropine was of good size.

The patient described paroxysms of pain in the eye of all the severity of gout in the toe. He said that they came on suddenly, lasted for a few hours, were attended by throbbing, and were simply unbearable. He had been obliged repeatedly to send for his surgeon to have morphia injected. At the time of my seeing him the pain was quiet, but the eyeball still very sore and tender. There was no purulent discharge, nor any proof of gelatinous effusion into the anterior chamber. Both conjunctiva and sclerotic were much congested.

The history of family gout was most definite. His father, who died at 35, had suffered an attack every year for several

years, and many other relatives had also had it. It was present also in his mother's family. The patient himself had lived carefully, and had never suffered from any joint affection whatever until he contracted gonorrhœa.

No. III.—*Protracted Rheumatoid Arthritis of one Wrist. Remarks on its peculiarities.*

Captain L——, a seaman, aged about 50, affords a good example of acute arthritis of the wrist joint.

He was sent to me as a surgical case by a very distinguished physician. He himself had considered it rheumatism, as he had suffered repeatedly from rheumatic pains. The hand was in the position of dropped wrist, but great swelling. It was fixed, and could be neither pronated nor flexed. The swelling was diffused and rather firm. It did not present any boggy points, or threatening of suppuration, and it had neither much tenderness nor pain.

He was carrying the limb about without either sling or splint, and said that although the pain had at first been great it had entirely passed away, and that he was now able to sleep well. His account of the beginning of the attack was that he had fallen asleep one summer night on the deck of his vessel, that a cold wind sprang up, and that on awaking he found his hand and wrist chilled, bluish, and painful. Swelling and great pain about the wrist quickly followed. This was three months before he was sent to me. Capt. L—— was a tall dark-complexioned man of bilious aspect. The facts of his case and the condition of his wrist and hand made me think strongly that it was an example of arthritic and not of scrofulous inflammation, and that the tendency would be to ankylosis and not to suppuration. From this diagnosis it followed that endeavours should be made to secure movement, and that it was neither essential nor desirable to place the joint in a condition of rest. I ordered for him the application of the tincture of capsicum every night, and prescribed quinine, aconite, and the iodide of potassium. He was anxious to know whether he ought to be kept at home for treatment or might venture on another voyage into the tropics.

I encouraged him to the latter course, believing that the change of climate would prove a remedial measure to him. He came to me after about a fortnight's use of the capsicum, &c., and with great improvement. The swelling of the wrist was considerably less, and a certain amount of movement, both of supination and flexion, was practicable. I now advised free inunctions with lanoline and iodide of lead, and ventured to commence a course of passive movements of the joints. He was to sail in a few days.

My experience of acute rheumatoid arthritis of the wrist limited to a single joint and simulating destructive suppurative inflammation has not been extensive. I have of course seen a great deal of chronic rheumatic disease of this joint in association with general rheumatism. It is, however, for the most part only when the disease is acute and restricted to one joint that the diagnosis becomes difficult. The two cases most nearly parallel to the one just narrated which are in my memory are the following:—Mrs. M——, a florid and very healthy lady, of about 30, with a strong gouty history, passed through a most severe attack of inflammation of one wrist. She had nothing else at the time the matter with her. The condition was very painful, and it resisted all measures of treatment for about six weeks. It finally, however, yielded quite satisfactorily; no suppuration occurred, and we were able by the systematic use of manipulations to prevent ankylosis. In another case, which I believe I have published somewhere, a woman of about 38 was under care in the London Hospital. The inflammation of the wrist and carpus was very severe, and the opinion of most who saw the patient was that it was suppurative and would end by breaking down. My own diagnosis, although by no means confident, was throughout in favour of rheumatic gout; it was based chiefly on the patient's history. That it was correct was, I think, demonstrated by the fact that after about three months' duration and long resistance of treatment the inflammation began rapidly to subside and complete recovery took place, though with considerable stiffness.

No. IV.—*Fibrous Anchylosis of one shoulder in a Girl, without signs of preceding inflammation. Strong history of Gout in predecessors.*

I once had under care in the London Hospital a girl, in whom the right shoulder had become stiffened from an attack of chronic and almost painless inflammation. She was of fair complexion, florid, and well-grown. Her age was twelve. The deltoid was wasted, and although by manipulation certain limited movements could be produced, she was not able voluntarily to accomplish them, and in raising the arm she always moved the scapula. She had, when I saw her, no pain whatever, and allowed the joint to be examined without flinching in the least; indeed, from the beginning, painlessness had been a characteristic feature. She stated that she had only found out that her shoulder was stiff, by being unable to accomplish some movements which other girls did in calisthenic exercises at school. I made an examination of the joint under ether, but found it impracticable to obtain any material increase of movement. I drew the attention of my class to the peculiar difficulty in restoring movement to a shoulder-joint which had once stiffened, remarking that it was, with the exception perhaps of the ankle, the most difficult joint in the whole body in which to prevent stiffening. This is due in part to the extreme mobility of the scapula, which renders it difficult for the patient to know whether he is using the joint or not, and at the same time greatly diminishes the inconveniences of stiffness. The shoulder-joint is almost the only one in the body which can become stiff without the patient finding it out, and in it what may be called insidious or unrecognized loss of motion is by no means uncommon. Of this the case under observation is a very marked example. In proceeding to inquire as to the precise nature of the disease, I said that I had, in the present instance, little doubt that the patient inherited an arthritic tendency, and that very probably there was the history of true gout in her family. This was most fully confirmed by our subsequent inquiries. It appeared that her paternal grandfather had

"died of gout," having had large chalk-stones on his knuckles. Her father had his first attack of gout at the age of 20; and now, at the age of 41, he, like his father, has chalk-stones.

The study of maladies occurring in the children of gouty parents is one of great interest. That they suffer from maladies which, whilst certainly in direct connection with the inheritance, yet differ very greatly from the popular idea of gout, is unquestionable. Our opinions on this subject need to become wider, and less conventional. Whilst some gouty affections, perhaps most, are intensely painful, others are characterized by slow progress and a remarkable absence of pain. Whenever children, or young persons, become the subjects of painless stiffening of joints, with no tendency to synovial thickening, a history of gout is to be suspected; and the same is the case whenever iritis occurs in young persons without obvious cause.

In support of these assertions I venture to cite the peculiar form of insidiously progressive, but almost painless, iritis, which I described some years ago, as peculiar to the children of the gouty. This form of iritis has its analogue in forms of joint-disease, such as the one described above. In the case of the eye, iritic adhesions may form and the pupil become closed, not only without any acute attack, but almost without the patient's experiencing any symptom except the loss of sight. An almost exactly similar process had probably taken place in the girl's shoulder-joint described above.

No. V.—*Note on Stiffening of the Shoulder-joint.*

We may note in connection with this subject that the shoulder-joint is very apt to stiffen if kept long at rest. This will happen after accidents in which the joint itself is not involved, or after operations, such as excision of the breast, which have nothing whatever to do with the shoulder, excepting that they necessitate a period of absolute rest. I believe that this stiffening is especially apt to occur in those who inherit arthritic tendencies.

I saw not long ago a man aged 34, who had been treated for a fracture of the humerus, which did not involve the joint. It had been kept in splints for five weeks, and the union was perfect. When I saw him sixteen weeks after the accident the arm was quite straight, and there was neither swelling nor pain, but, to the great disappointment of the patient, the shoulder was stiff.

Now the history of this man's family was that his father and one of his brothers were crippled by rheumatism; the brother to such an extent that he was quite helpless. The man himself was not aware that he had ever suffered from any form of rheumatism. I advised in this case that anæsthetics should be used, and the shoulder forcibly manipulated; but for reasons which I have already explained I have but little hope that he will regain the use of the joint.

SYPHILIS.

No. XII.—*On the diagnosis of Pityriasis Versicolor from Syphilitic eruptions.*

Few errors are more common in reference to syphilitic eruptions than to mistake common chloasma for such. It is so definitely copper-tinted, that when it occurs to a person who has formerly had syphilis an erroneous diagnosis may easily be made both by the patient himself and his adviser. A little care is, however, all that is needed, and such an error, if the case be well characterized, can never happen to any one well accustomed to skin-diseases. There are, however, certain very rare forms of cryptogamic (?) eruption on the skin which may puzzle even the most experienced. In most of these the microscope is an easy and conclusive means of clearing up doubt. Not, however, always. I am familiar with cases which present patches which look exactly like ringworm of the naked skin, and which occur without symmetry and apparently multiply from a single parent just as ringworm does, and which yet never show any fungus. These cases usually happen to be in those who have had syphilis, and the difficulty always is to say whether the eruption is or is not specific. The patches are, I think, usually cured by local applications of mercury, whether in lotion or ointment.

No. XIII.—*Inherited Syphilis. One child escaping and a younger one suffering very severely.*

Dr. Gunther, of Wimbledon, brought to me a very interesting case illustrating the laws of inheritance of syphilis. It was especially important as proving that

transmission of a very severe form is possible several years after the acquisition of the disease by the parents, and after the birth of one child which had been free from symptoms. Her husband contracted syphilis in July of 1882, and his wife had a syphilitic eruption in the early part of 1883. Both were treated for about two months by mercurial inunction, and got quite well; with the exception that the husband remained liable to a slight palmar psoriasis. The wife had no reminders whatever.

In 1883, there was a premature dead birth.

In 1884, twins were born prematurely, and both died almost immediately.

In 1885, a female child was born prematurely, which weighed less than 4 lbs., but which survived and never showed any indications of syphilis.

In 1887 (December), a very fine male infant, apparently in perfect health, was born. This would be nearly five years after the mother's syphilis. It remained healthy till six weeks old, when a severe scaly inflammation attacked its hands and feet. When I saw it two weeks later, it was emaciated and had sores on the scrotum and cracking of the lips; its hands and feet were in a condition of diffuse inflammation, but were not definitely bullous.

No. XIV.—*Syphilis in both parents. Escape of children from three years later.*

I attended Mrs. N—— six years ago on account of a most severe attack of syphilitic iritis. She had at the same time a copious eruption. Her husband, a medical man, admitted having communicated the disease to her, and was himself still under treatment. Both the parents took mercury for a considerable time, and both got quite rid of their symptoms. Neither of them have needed any treatment during the last five years. They have continued cohabitation ever since the unfortunate occurrence, and the following is a statement of results. The first two conceptions ended in premature births, but two later ones in living healthy children. The eldest child is now two years and a half

This was just healed. He assured me that it behaved like a boil, but it may have been a chancre.

No. XVI.—*Congenital Syphilis as a possible cause of Knock-knee and other Joint deformities.*

I recorded many years ago, and mentioned again in my little book on syphilis, several cases in which definite abnormalties of growth in the joint ends of the long bones had resulted from inflammation in the infantile stages of congenital syphilis. A case in which a surgeon brought to me his own child, whom he knew to have suffered in infancy, was of interest in this respect. The child, when I saw her, was six years old, and was very decidedly knock-kneed. Her father told me that in infancy her wrists, elbows, and knees had all been enlarged and tender for some considerable period. I carefully examined them all, but, with the exception of the knees, the ends of the bones now showed no deformity. The wrists in particular were shapely, and did not show the clubbing often seen after rickets. The child was the subject of choroiditis.

No. XVII.—*Subacute Sarcocele at the end of a year from the beginning of Syphilis.*

A patient whose syphilis was not treated sufficiently vigorously had his eruption come out in spite of mercury and assume the rupia form. He continued treatment by specifics for a year, but was still not quite cured. At the end of the year, whilst still under treatment, his right testis suddenly swelled. It was the body of the gland which was affected, and the swelling was considerable and attended by some pain. It appeared to be an example of a subacute infiltrating gumma.

I do not know that I have ever seen syphilitic implication of the testicle at so early a stage of the disease as in this case.

suffered most severely, being covered with a thin eczematous crust, just as seen in the most severe infantile forms. The condition entirely disabled him from his occupation, and reduced him to a most pitiable condition. The history given was that in infancy he had suffered from eczema of the face and head, which spread to the body, and from which he had never been wholly free since. His father and a brother had also suffered from eczema in childhood, and the former did not get rid of his till past puberty. Our patient stated that from infancy till the last twelve months his face had been free, and often he had got almost well on the body, never, however, losing it at the flexures. He had been under the treatment of many specialists, and plaintively added, "I've had cuticuria and vinolia, and Clarke's blood mixture, and they do me no good whatever." He was an intelligent man, of fair complexion and rather thin. There had been great irritation, and he admitted that he was accustomed to scratch freely whenever it was not too sore. There had been without any obvious cause a considerable development of the disease of late, and his face and head had again become involved after a long period of immunity. His digits were affected to their very tips.

No one can doubt respecting such a case as this, having regard to the family history and general facts, that it is simply an uncured relapsing eczema. No good purpose can be served by giving it a new name because it is pruriginous and because it threatens to last the patient's life. The remedies which will do good are those for eczema, and had they been patiently and efficiently used in infancy, the disease would probably have been cured. If once quite cured there is a fair probability that it will not recur, but if any portions of skin be left still affected, they will always serve as foci from which the malady will be re-lighted. The grand point will be to induce the man to resolutely forego scratching, and to constantly use local applications (tar washes) instead. If he has strength of mind and patience to do this, he may get quite well, and remain so. On the other hand, if the disease be not cured, he will probably have, within a certain number of years, general gland enlargement, with emaciation and anæmic

cachexia. In this way by slow stages such cases may tend eventually to a fatal termination. The pruriginous element and the want of self-control are very important. I have known a man literally scratch himself to death, the disease being all the time a curable one, could he have been induced to abstain.

No. XX.—*Herpes Tonsurans which had travelled from the Scalp to the Skin of the Hand* (*two cases*).

I have just seen a case of ringworm on the hand of a boy which has interested me. The lad was brought for "eczema," and all that he had to show was a narrow line of slight redness with exfoliation, which crossed the back of his hand and extended upon his thumb. All the rest of his skin was quite healthy. My attention was attracted to the abruptness of the line, and the circumstance that it presented the appearance of a number of curves joined together. It was, in fact, like a part of the edge of a large patch of eczema marginatum as we sometimes see it on the inside of the thigh. I never, however, saw the latter with such a very insignificant border, or with such perfect soundness of the skin which had been abandoned. Knowing, however, of no skin eruption excepting ringworm which can take the form of a narrow advancing border alone, I at once suspected this disease. It was difficult to get anything for the microscope, for the hairs were very small and the desquamation very little. However, using a lens, I picked off a few scales, and pulled out a few hairs. At first there appeared to be nothing. The hairs were as transparent and as smooth as possible, and nothing like a broken one could be seen. After a little search, however, plenty of fungus was found in the form of long monilliform threads clinging to the roots of the hairs. The common condition was jointed threads, and for the most part outside the hairs. There were but few groups of spores.

The history given was that the boy had suffered from ringworm of the scalp six months ago, which had been well cured. Ever since, however, a slightly marked eruption had been

slowly travelling down his arm, of which what I saw was the remains. A portrait of the hand was taken by Mr. Burgess for the College of Surgeons collection.

A few days after I had seen this case a somewhat similar one presented itself in a little girl, whom I had myself treated for ringworm of the scalp. All that remained in her was a patch on the back of one hand.

No. XXI.—*Unusual appearances in Tinea Versicolor.*

The case which I am about to relate differs a little from those to which I have above referred, and should be classed as an example of chloasma (pityriasis versicolor) which became difficult of recognition because it did not present its usual appearances.

A gentleman from abroad came to me with an eruption on his arms, thighs, and trunk, which had been treated by his own surgeon, after consultation with an able specialist, as syphilitic. He had been put under the full influence of mercury, but without any benefit to the skin. There was no doubt that he had had syphilis, but it was ten years ago, and for nine years he had been without reminders. He was in excellent health. The eruption occurred chiefly on the trunk and limbs, and consisted of slightly desquamating areas, which were for the most part well margined, but not everywhere. About the scrotum and thighs, for instance, there was general slight desquamation, no definite patches, and only ill-defined borders. On the trunk there were two or three patches with slightly lichenoid edges, and with tendency to recover in the centre. These looked much like ringworm. None of them in the least resembled the ordinary appearances of pityriasis versicolor, and that diagnosis did not at first occur to my mind. Having regard to the affection of the scrotum and adjacent parts of thighs, I thought of eczema marginatum (the cryptogamic form) and also of common ringworm. I felt sure, both from the history and the very superficial character of the dermatitis, that it was not syphilitic. At such a distance from the primary disease we never see general and symmetrical eruptions. I scraped

from the patches on the forearm some epidermic scales. They were not abundant, and were much more difficult to get than is usual in chloasma. The microscope showed plentiful fungus. My patient at this stage told me that he had just come from Paris, where he had seen M. Vidal, who, like myself, had used the microscope, and pronounced the disease pityriasis versicolor, and had ordered, as I did, sulphur baths for its cure.

The fungus presented some minor features of difference from that of the microsporon furfur. More especially, its spores were unusually large. The case is of interest in showing the value of the microscope. I also think that it lends support to the belief which I have long entertained, that the fungus of ringworm, of pityriasis versicolor, and of "eczema marginatum," is one and the same.*

No. XXII.—*Urticarious swellings in throat, tongue, and various parts of the body.*

The essential feature of all urticarious inflammations is the development rapidly of discontinuous swellings which show a tendency to disappear spontaneously and quickly. The following case may, I think, be claimed as one of urticarious œdema. In all probability its cause was some article of diet taken unsuspectingly. A gentleman aged about 39, who had ten years ago been under my care for other disease, was brought to me by Dr. Bronner, of Bradford, with the following history. He had been attacked suddenly one day by tingling and swelling in front of his wrists and on his heels. On this there quickly followed great œdematous swelling of the uvula and soft palate, chiefly on the right side. The swelling was such that Dr. Bronner had to scarify freely. The next morning the tongue swelled, chiefly on the right side, and Dr. Bronner was summoned in the night, it being feared that suffocation was threatened. The swelling, however, rapidly passed away. There was next a large œdematous swelling in front of one

* I note with interest that one of the most recent botanical authorities on this subject sees no cause to make different species of these fungi. See Flügge on "Micro-organisms," p. 127, a work which is now in course of issue to the members of the New Sydenham Society.

elbow, and next one cheek swelled up. Finally there was fixed pain at the epigastrium, and sense of obstruction in the œsophagus. The whole period of liability was one week, and then the recovery was complete, and Mr. B. as well as ever. There had never been any increase of temperatures. It is to be noted that nothing resembling an ordinary urticarious wheal had ever been observed in the skin. All the swellings had implicated the submucous and subcutaneous cellular tissues rather than the skin itself.

No. XXIII.—*Universal Alopecia in middle age, with history of severe ringworm in childhood.*

A lady, aged 45, who was sent to me by Mr. R. H. B. Nicholson, of Hull, was absolutely hairless. She had in the course of about a year lost all her scalp hair and that of her eye-brows, eye-lashes, axillæ, pubes, and limbs. She assured me that she had not a hair left. The alopecia had begun in the usual way by patches on the scalp, (one on the vertex and one on the occiput,) which for some months did not spread much. Then occurred a sudden accession of severity, and the hair fell, she said, with most astonishing rapidity until all was gone. Although she considered that she had been out of health, and had suffered from "nerve shock," I could find nothing special. She was florid, and looked well. She had been liable, like most other people, to headaches, but curiously they had been quite in abeyance during the time that the hair was falling. She had been well treated in the early stages by means of blistering, &c., but nothing had seemed to do any good.

I of course asked as to ringworm. "Oh, yes," she replied, "I had it very badly, and my head was shaved four or five times. I shall never forget it." This was about the age of seven. A sister, since dead, had ringworm at the same time.

It will be seen that in this case the interval between the cure of the ringworm and the beginning of the alopecia was probably not less than thirty years.

No. XXV.—*Two additional Cases of Purple Patches on the Skin. History of Gout in both.*

In the first number of the "Journal of Dermatology" I published some cases of a peculiar disease of the skin in which are formed large, smooth, and thickened patches, of which the conspicuous feature is their purple tint. There seemed to be some connection between the condition described and gout. In another direction it seemed possible that the cases might be allied to granuloma fungoides—or perhaps I had better say that some of the cases which have been published as granuloma fungoides belong to this category. Since the paper referred to was written, I have had some fresh facts under observation which throw additional light on the matter. They give examples of the malady in its earliest form.

Case I.—A gentleman aged 65, whom I have known for many years, and who has often, amongst other things, suffered from gout, has recently developed one of these patches on his left knee. He is a great rider, and the patch has formed on the inner side of the knee, just where it grips the saddle when on horseback. It has been present for a year or two, but has only recently increased so much as to induce him to seek advice. It itches a great deal at times. The patch in question is as large as the palm of the hand, raised so that it is in most parts at least a quarter of an inch thick. It has well-defined borders, and is of a dusky purple tint. It is quite free from tendency to vesicate or excoriate in any manner, and not in the least eczematous. It has as yet no satellites. Mr. T—— is a very florid man of large frame, and has lived freely.

Case II.—Mr. G—— is a gentleman of dark complexion and florid face. He is 56 years of age, and has enjoyed good health with the exception of repeated slight attacks of gout in his foot and hand. He inherits gout on both sides. During the last two years he has had forming in the middle of his forehead a large dusky purplish patch which has thickened and well-defined borders. It has been called "eczema," but it has never been in the least moist or scaly, and is at the present time quite smooth and soft. All creases and wrinkles have disappeared on its surface, but the orifices of the hair-

No. XXVI.—*A Note on Papillary-Psoriasis.*

I have been accustomed to give the name of papillary-psoriasis to certain cases in which with scaly patches there is also distinct evidence of overgrowth of papillæ. It is a condition usually very chronic, and is most often seen on the legs. The patches are seldom so well defined as in common psoriasis, and more often are long ovals in shape instead of round. They are often attended by considerable thickening, which is always greatest in the centre. Often for a long time there is but a single patch, but sooner or later others usually form. There is more or less itching, and the condition is often aggravated by scratching. There is never any moist discharge. The condition appears to be far more of a local nature than is common psoriasis, but it is often attended by a general eruption, or at any rate occurs on other parts as well as the legs. When this is the case the eruption may resemble some of the varieties of lichen planus more nearly than psoriasis.

The condition to which I refer is more common in the aged than the young. I have, however, in one instance seen it in a marked form in the legs of a young man of 20. It was on both legs, and there were many patches. It lasted several years in spite of a great deal of treatment, but at length got quite well, and has remained so. He is the subject of slight xeroderma, and was in infancy long under Sir Erasmus Wilson's care for eczema. His mother is much troubled with dry and cracked palms, and other relatives have had chronic skin diseases. Since his recovery, he has suffered from leucoplakia in the buccal pouches. The patches on his legs were most definitely papillary.

It may be freely admitted that the condition is an ill-marked one. No two cases are alike. Whilst in some the connexion appears to be with psoriasis, in others it is rather with chronic eczema or with lichen planus. The condition which gives it peculiarity—the papillary overgrowth—is no doubt in most part influenced by the part affected. On the legs, where the circulation is at a disadvantage and venous turgescence easily produced, there is always greater tendency

to hypertrophic changes than elsewhere. This is well seen in elephantiasis and some other maladies.

No. XXVII.—*A peculiar form of Psoriasis attended by papillary growth (Papilloma-Psoriasis). A remarkable example of it.*

A most exaggerated example of this peculiar form of skin disease occurred in the person of an old gentleman who was sent to me in 1887 by Dr. Jotham, of Kidderminster. Both his legs were covered with large abruptly margined patches from a quarter to fully half an inch in thickness. Upon the tops of the papillæ crusts had formed, which had dried and become smooth and polished, presenting a most peculiar appearance. Upon these crusts he could bear pressure without flinching. This description applies only to the larger patches the smaller ones were still rough. The largest patches were as big as the outspread hand, and occurred on the front and sides of the lower thirds of the legs. Above these were a dozen or more others from the size of a sixpence to a halfpenny. Although most formidable-looking, the disease had not caused much inconvenience, and Mr. B—— was still able to walk about pretty well. The patches on the right leg were larger than those on the left, and had appeared first. It seemed very probable from their arrangement that the smaller patches were satellites of the larger one. The history was that a patch "like a little boil," but which never broke, had first made its appearance in the right leg. It itched, and he rubbed and scratched it, and extension at its sides took place, and the surface became warty. Afterwards the progress was that of steady extension, and other similar spots were produced in the neighbouring skin. After the disease was advanced, the itching almost wholly ceased. Although the patches formed coherent crusts which were not obviously scaly, yet there was never any discharge whatever. At first Mr. B—— told me that he had no skin disease elsewhere, but then recollected that there were two or three itchy spots just above the left elbow. I found, on inspection, three dry scaly patches in this situation

Mr. B——'s age was 76; he was a dry-fibred old man, of considerable vigour, with abundant white hair, and a pale somewhat earthy complexion. He said that he had always enjoyed good health with the exception that he had been liable to diarrhœa. The disease on his right leg had begun about three years ago, and that on his left about a year later. There was no history of skin-disease, cancer, or of special liability to warts, in his family.

I detached the thick polished crusts which coated the larger patches, and found beneath a crop of foliated papillæ which branched into their covering as we sometimes see when thick layers of ointment have been allowed to accumulate around sores on the legs of old persons.

When I first saw Mr. B——'s legs, I may admit that I had very little hope of being able to do anything for his benefit. The conditions looked very formidable, and they were still aggressive. My first prescription was a mercurial ointment, which was to be used after removing the crusts by means of a tar-wash. He was to take arsenic in full doses with nux vomica and a little opium. This was on December 22nd. A month later he was no better. The polished crusts had been removed, and the papillary surface underneath was more sore in consequence. I now ordered a complicated plan of treatment. The patches were to be freely brushed over with creosote once or twice a week, the legs were to be cased night and day in Martin's rubber bandages, and he was to take internally opium rather freely. Under this plan improvement began at once. Great layers of epidermis separated from the patches after the use of the creosote, and the latter became greatly reduced in thickness. When he next came to me two months later (March 16, 1887), I was much gratified to find the legs almost well. All the smaller patches were quite so, their healthy scars being all that remained, and the larger ones were very little raised above the surface, and much reduced in size. It may be a question whether the creosote, the bandage, or the opium was chiefly to be credited with the cure. My impression is that all helped, but of the three I put most confidence in the opium. This preference seems justified by the fact that the little

patches which had had the smallest share in the local treatment, or at any rate in the creosote, had healed first, and that the three spots above the elbow which had not had any local treatment had ceased to itch, and had almost wholly disappeared. The old gentleman's health had improved under the drugs. He had an excellent and sound digestion, not the least constipation or headache, slept well, and could walk three miles at a time. The dose of opium had been fifteen drops of Battley three times a day (for two months).

In reply to an inquiry, May, 1889, two years after the cure, Dr. Jotham was kind enough to inform me that the legs had remained perfectly well, the skin being quite smooth.

No. XXVIII.—*A remarkable case of Leucoderma Areata. Some curious facts possibly bearing upon its causes.*

I recently obtained some interesting information bearing upon the causes of leucoderma. My patient was a young woman who was sent to me by Mr. Calthorp Allison, who had previously been kind enough to give me her photograph. It was a well-marked case, and presented no peculiarities excepting in the unusually strong contrast between the areas which were blanched and those which remained brown. So extremely dark were the latter, that it was almost impossible not to believe that their pigment had greatly increased in quantity. The colour was that of a mulatto's skin. In reference to this question, however, it is to be noted that the patient was in this instance a brunette, and further that her mother, who came with her, had her face and arms quite as dark as the deepest tinted parts on the patient. The mother looked like the subject of bronzed skin, but she asserted that she was in excellent health, and that her tanned condition was due only to exposure. There could be little doubt that in her the pigmentation process was very easily excited. She was naturally of dark complexion. On inquiry I learnt that the father of the patient, in great contrast with his wife, was of a very fair complexion. Of their five children, three were dark like the mother and two were fair. The mother stated that in the

three who were dark there had been the peculiarity in infancy that they all had numerous white hairs on the scalp, which became coloured as they grew up. This peculiar feature had been very marked in the patient, who, in addition to the scattered white hairs, had a large tuft of them near the occiput. This patch, as well as the scattered white hairs, had all now become of a deep brown, almost black. Thus it would appear certain that in this family there were exceptional tendencies towards pigment changes. Whether these were to be attributed entirely to inheritance from the mother, or to the fact that the father and mother were of such different complexions, it is difficult to say. In the patient the leucoderma had begun to show itself in childhood; the patches were very symmetrically arranged, and involved the face, limbs, and body. It was thought that they had not very much increased of late years, but on this point there was no trustworthy evidence.

On the subject of leucoderma I may just remark that I do not think I have ever known two persons who were relations the subjects of it. Certainly I have never seen two members of the same family. It would be of interest to ascertain the extremes of age at which it commences. I am not sure that I have ever seen it at an earlier age than seven, or later than fifty, but it is very probable that in children its early stages are overlooked. The portrait given in the New Sydenham Society's Atlas might well stand for that of the patient whose case I have given above, if we may be allowed to suppose the contrast between the brown and the white still more marked. I carefully compared the lad who was the subject of that portrait with the original sketch some ten years after it was taken. The white areas had enlarged a little, but not to any great extent. He was in perfect health, and the changes were still quite symmetrical.

No. XXIX.—*Leucoderma at a very early age. A parallel with Psoriasis.*

Miss L——, aged seven, is an example of leucoderma beginning at a very early age and in a very fair skin. She

deprives the light rays of an irritating quality, may be the true explanation. He refers to the customs of certain native races who colour their faces when about to encounter sun exposure. The influence of snow is, he thinks, to make the light which is reflected from it much more powerfully irritating. The effect of sunlight when suddenly applied is to cause the skin to inflame and blister, but if the exposure be moderate and long continued, then bronzing is the result, and with bronzing comes a large measure of protection. Dr. Bowles asks attention to the peculiarly brown complexion which all dwellers at St. Moritz acquire, and compares it with the dark colour of Swiss châlets when amongst snow. This latter phenomenon he attributes to the same cause, a sort of burning influence exerted by rays of light which have been reflected from snow.

The subject is one of some novelty and much interest to medical men. Cases of eczema-erysipelas not infrequently originate from exposure in Switzerland, and lupus erythematosus also is occasionally seen as the result of sun-blain. We have also a distinct group of maladies (allied to Kaposi's Disease) which have for their special peculiarity that they are always worse in summer weather.

No. XXXI.—*A Peculiar Eruption — Symmetrical pigment spots over limbs, face, and trunk, of four years' duration in an adult.*

The case of Miss C. G—— was one of some peculiarity. Her arms were covered with an eruption which, at first sight, I took for the stains of a just receding syphilide. They were also freckled all over with deeply pigmented spots. She told me, however, that she had suffered from the eruption for four years, and that it got neither better nor worse. There was, moreover, not the slightest reason to suspect syphilis. I found that the freckling affected the face and the body, and the whole of the limbs more or less. On the face, however, the patches were very indistinct, and the condition was one of little more than slightly brown discoloration. On the legs there were plenty of distinct patches, but, contrary to

They become somewhat softer and less shotty as they grow bigger. The eruption is most abundant in the cleft between the scrotum and thigh. In this position the spots have coalesced and formed a patch on each side as large as the palm of the hand. Here, owing to friction, excoriation is threatened, but nowhere else is there any suggestion of it. In the axillæ the patches are numerous and of a very deep yellow, but are as yet tolerably discrete. On his scalp the spots are very numerous, so much so indeed as to nearly cover it. On the sides of the nose, on its tip, on the upper lip and the whole of the chin, the patches are very abundant. There are comparatively few on the forehead, almost none on the bridge of the nose, and none on the cheeks. With the exception of the concha of the right ear, there are none on, or in, his ears. In the right ear they are placed exactly in the position where the orange-peel patch of lupus sebaceous comes. The eruption on the upper extremities does not come below the deltoids. The lower extremities are almost exempt. His back is covered down to the cleft of the nates in the middle line, but the nates themselves, the back of the neck, the nape, and the backs of the arms, are exempt. It is his impression that some go away and that fresh ones come. Amongst those which are best developed and most yellow there are a great number of red stains, concerning which it is difficult to say whether they are increasing or receding. It is to be particularly noticed that the eruption avoids rather than otherwise the usual xanthelasma positions. There are numerous spots on the edge of the eyelids and near to the roots of the cilia, and there are but few above or below the inner canthus. There are several on the caruncle of each eye, and on the right eye two in the subconjunctival tissue, near to the border of the cornea. There are a few on the soft palate and a few on the fauces. On the lips they come close up to the skin margin of the prolabium, but do not involve the latter.

The man says that up to the beginning of his illness he was accustomed to take beer, but in strict moderation. During the onset of his symptoms almost every other morning he had a shivering fit. He does not remember that his urine ever contained bile. His tongue now is perfectly clean, and he

PLATES III & IV.

A CASE OF IODIDE OF POTASSIUM ERUPTION.

This portrait and the following belong to the same case, and illustrate the most exaggerated form of iodide of potassium eruption which I have ever seen. I do not think that there could be any reasonable doubt that the huge tuberous masses here depicted were really the result of the use of the iodide. As such I diagnosed them before knowing anything of the man's antecedents, and subsequent enquiry confirmed the suspicion. It will be observed that they are very similar in all local characters to others which have been not unfrequently observed after the use of the iodides and bromides, differing simply in the size attained. In illustration of this it will be of interest to refer to a portrait published in the New Sydenham Society's Atlas, in which the eruption was undoubtedly due to the bromide. The explanation of the very large size of the growths in the present case was to be found in the fact that the dose of iodide had been steadily increased as the eruption advanced.

The patient was a man aged twenty-six, who was admitted into the London Hospital much in the condition shown in the portraits. The latter were indeed taken on the day after his admission. He died from exhaustion a few days later. On enquiry at the Hospital in which the man had been treated before he came to us, it was ascertained that he had been admitted there on account of some swelling of the groin, which was diagnosed as syphilitic. He had at that time no skin eruption whatever. Iodide of potassium in five-grain doses was at once ordered. An eruption soon began to appear, and as it was considered to confirm the diagnosis of syphilis the iodide was increased to ten grains at the end of a week. Ten days later it was increased to fifteen, and later still to twenty. He continued it without intermission from July the 23rd to October the 9th, when mercury was

substituted. The eruption had been steadily getting worse the whole time, but as it had been throughout considered to be syphilitic the specific had been pressed.

On careful enquiry I did not think that there was much reason to suspect that the man had really had syphilis. He lived for about a fortnight after the iodide was completely left off, but during this time no material change occurred in the eruption. He was in an extremely feeble condition the whole time; and his death was from exhaustion. The microscope was carefully used, but revealed nothing of importance.

In the Guy's Hospital Museum there is a model (No. 117), which may perhaps belong to a closely similar case. Some of the tubers were as large as plums, and one of them even measured two inches across. Unfortunately no history is obtainable. I was indebted to my friend the late Dr. Hilton Fagge, the author of the Catalogue of the Guy's Collection, for drawing my attention to the close similarity between this model and my own case. I cannot but suspect that not a few cases which have been classed as cutaneous gummata in connection with syphilis have been really examples of iodide of potassium eruption, and I can call to mind several in bygone years in which patients died with severe eruptions of an anomalous character which were not improbably due to this cause. The frontispiece to Dr. Prince Morrow's (New York) work on 'Eruptions due to Drugs' shows the conditions in a fatal case of iodide poisoning. In it the tubers were not so large as in mine, but the inflammation of skin was more diffuse. Death was caused by a much smaller quantity of the drug than in my case.

Not only is it necessary in the diagnosis of syphilitic gummata of the skin to first eliminate iodide eruptions, but the same remark applies to the various conditions which have been grouped together under the name of "Granuloma Fungoides."

West Newman&C. ... ar Lith.

West Newman & Co. chr. lith.

West Newman & Co chromo lith.

[illegible]

PLATE 6.

West, Newman chromo.


West, Newman chromo.

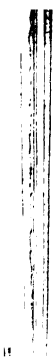


PLATE IX.

A PECULIAR FORM OF SERPIGINOUS AND INFECTIVE NÆVOID DISEASE.

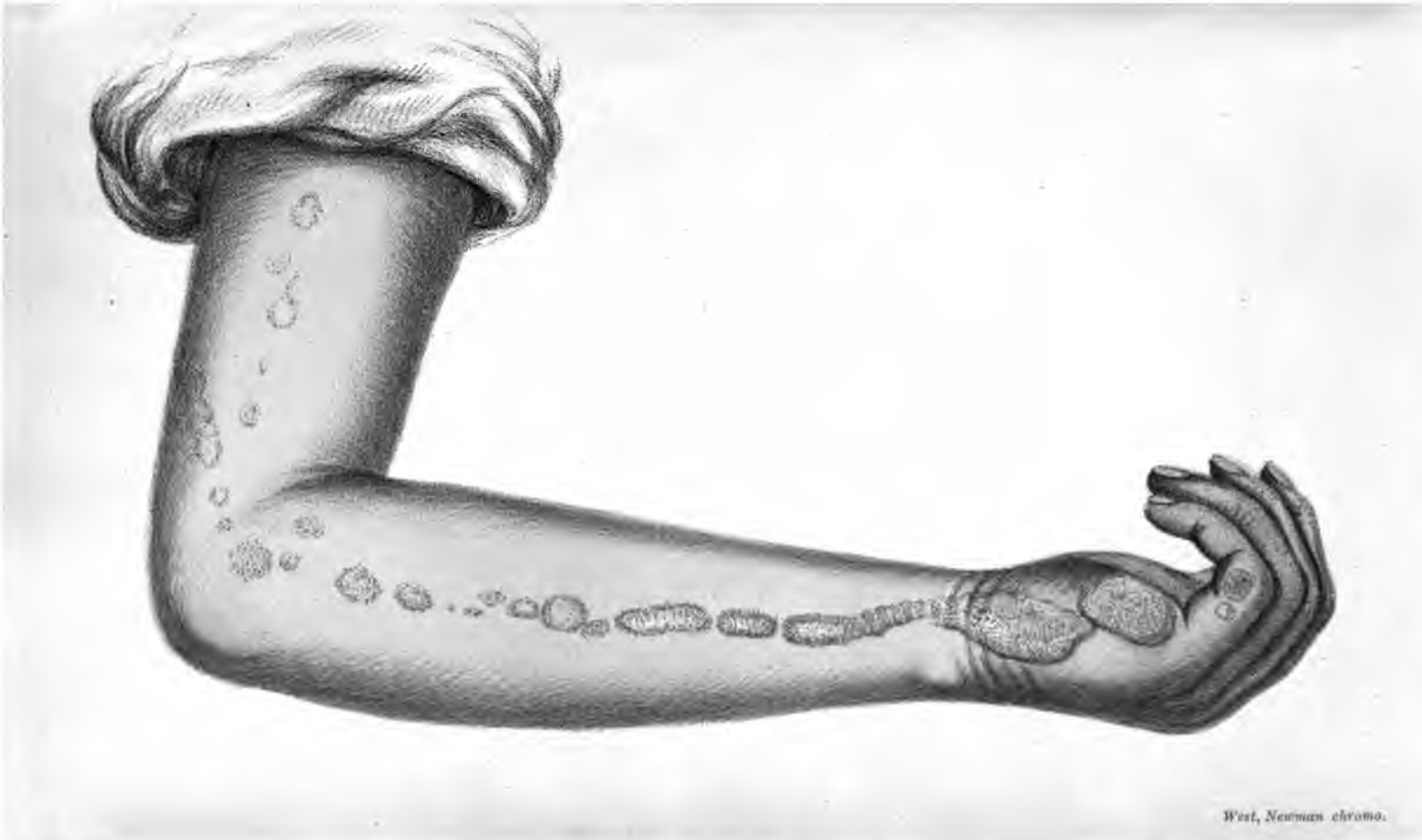
This portrait, which was taken from the arm of a young lady about fifteen years of age, purposes to illustrate a very peculiar condition of serpiginous or infective nævus. Although nævi often increase in size and in number during the first few months of life, it is very rare indeed for the growth to continue to spread. Such, however, was the case in this instance, and with the addition of other peculiarities. A very slightly marked port-wine stain was observed at the back of the arm soon after the infant's birth. For some years it scarcely spread at all, and no notice was taken of it. It then began slowly to advance, and the condition shown in the portrait was gradually produced. A careful inspection of the plate will show that the mode of advance is somewhat peculiar, and that it has not been by a continuous edge. It would appear as if little satellite spots had been produced, which had spread into circles, and, by gradually advancing by infective edges, had coalesced, producing the irregular pattern which is here displayed. Some very good examples of these spreading circles are seen over the elbow, quite isolated from the rest of the disease. These conditions are no ordinary part of nævoid disease. They were extremely superficial, and it was even difficult to be sure whether or not they left any state of scar behind them. I have, however, no doubt that such was their tendency, and that in some places a slightly-marked superficial scar could be demonstrated. The enlarged capillaries could be partially emptied by pressure, but not wholly, a
places little tufts were distended with deep-pur
which could not be pressed out. In this latte
as in its tendency to serpiginous spreading, a
satellites, the case closely resembled what
which I have ventured to name Lupus Ly

West, Newman chromo.

West, Newman chromo.

West, Newman

Wood, Norman, chromo



West, Newman chromo.

PLATE XV.

LUPUS LYMPHATICUS.

The two figures in this Plate are from different subjects, both of them young boys. The details of both cases have been published in the 'Pathological Transactions' for 1880. The disease was exactly alike in the two cases, and in each instance it had been developed without any preceding nævoid condition. In one case it began on the chin, by what looked like a little wart, at about the age of nine; and in the other on the shoulder, at the age of four, apparently the as result of friction from the boy's braces. In each instance the morbid condition had spread near to the part first affected, but had not developed itself on any more distant region of the body. It consisted of groups of coherent vesicles, upon and amongst which were little tufts of dilated capillaries. There was some general thickening of the skin at the base of the vesicles; the latter, which were firm and very persistent, yielded a fluid which was not distinguishable from lymph. There was no outgrowth of papillæ whatever. The character of the eruption was remarkably the same in all parts, varying chiefly in the presence or absence of the little capillary tufts. There was no discharge of any kind from the eruption, but the patches were liable to attacks of erysipelatous inflammation. The treatment adopted consisted in destroying the patches by caustics and the actual cautery. The report in the Pathological Society's volume is accompanied by a description of microscopical appearances, and an engraving by my friend Dr. Sangster.

PLATE XVI.

LUPUS LYMPHATICUS.

In this Plate a third example of this curious disease is shown, and the close identity of all three will be readily admitted. In this instance the patient was a young man of about 17, under care in the London Hospital. The eruption had been present several years, and was spreading, as in the other cases, at its borders and by the production of satellites. There were no similar patches on more distant parts of the body. Several attacks of a sore of erysipelatous swelling of the affected skin had occurred.

The malady here illustrated, and which I ventured some years ago to name as above, has now been well investigated by several observers, and, as far as I know, in England only. All agree that the cutaneous formations, which constitute such a prominent feature, are of lymphatic development. These little lymph-cysts have been classified principally under two conditions,—first, in connection with congenital naevi; and secondly, as in my present cases, wholly without such connexion. It would be convenient, I think, if the two groups of cases were kept apart. In justifying the term lupus lymphaticus as applicable to the non-naevoid class here illustrated, I take into consideration the facts (*a*), that the disease is of local origin; (*b*), that it is infective, spreading at its edges and producing satellites; (*c*), that it is very chronic, but at the same time very persistent in its course; (*d*), that it begins usually in the young; (*e*), that it leaves scars when cured; and lastly (*f*), that it is attended by cell-formations indistinguishable from those of lupus. It is of course very different both from lupus vulgaris and lupus erythematosus, but scarcely differs more from these than they from each other. All I contend for is that it should be placed in the lupus family. I have now seen about eight examples of the malady, and several have been recorded by other observers. The naevoid form was, I believe, first illustrated by Mr. Bryant, in the Pathological Society's 'Transactions,' and subsequently, in much more detail, by Dr. Tilbury Fox. The latter observer gave excellent microscopic descriptions, and fully recognised its lymphatic nature.